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Tobacco, Gender Roles, and Cancer in the *Mizo* Society: How Gender Determines Cancer Prevalence through Gendered View of Tobacco

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Abstract

Tobacco by itself has no gender. Like other elements in the environment it is a gender neutral element. Through the process of socialization, a person learns to identify certain forms of tobacco to male or female group. Gender roles in tobacco provide the social explanation for sex-linked patterns of tobacco use. However, these social origins are rarely given the attention they deserve, as if these behaviors were natural, rather than learned. Several avenues of research now indicate that men and women differ in their smoking behaviors. This paper presents the outcome of an intensive qualitative study of gender and tobacco in the Mizo society conducted during the years 2012 – 2015 in Mizoram by the authors. Smoking tobacco (Cigarette or Zozial) has been considered as more appropriate for male and smokeless tobacco more appropriate for female than for male. In fact, respondents in this study showed a strong disapproval for female who smoke, while smoking is considered acceptable for male. Data analysis shows a very significant relationship between gender and smoking tobacco: $C^2(1, N = 200) = 16 = .000$. *Data analysis also shows a very significant relationship between gender and smokeless tobacco consumption:* $C^2(1, N = 200) = 17 = .000$. *In the study population 40.5 per cent of the households reported that mothers or wives still prepare the traditional smoking tobacco called zozial for the male members of the family. Gender roles is well defined in the Mizo society which tells which type of tobacco a gender group may consume, gender roles also determine the producers of such tobacco items at home. These gender roles in tobacco consumption are matching with differences in cancer prevalence across the male and female population in the Mizo society as lung cancer is more prevalent among male than among female.*

Keywords: Gender, Gender roles, Socialization, Tobacco, Cancer, Culture, Prevalence.

Introduction

Gender is among the most prominent organizing principles in our society. From the day we are born—and even earlier as the result of reproductive technologies—on through to the day we die, we are gendered. In nearly all societies, men and

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women, boys and girls, have a different status and play different roles. Men and women behave differently, dress differently, have different attitudes and interests, and have different leisure activities. Contrary to traditionally held beliefs that these differences between male and female behavior are biologically or genetically determined, recent research has revealed that they are to a large extent socially constructed, or based on the concept of gender. Gender is a dynamic concept. Gender roles for men and women vary greatly from one culture to another and from one social group to another within the same culture. Race, class, economic circumstances, age - all of this influence what is considered appropriate for men and women. Contrary to sex, 'gender' has social, cultural and psychological rather than biological connotations. It is defined in terms of femininity and masculinity. The proper terms for describing sex, for example, are 'male and female' while the corresponding terms for gender are 'masculine and feminine.'

A gender role, as defined by Susan Basow, refers to society's evaluation of behavior as masculine or feminine, e.g., cooking is feminine, while fishing is a masculine role in most societies. 'Gender'- socially determined roles for each sex - provides the social explanation for sex-linked patterns of tobacco use. Gender roles - socially-determined norms and roles for each sex, provides the social explanation for sex-linked patterns of tobacco use. However, these social origins are rarely given the attention they deserve, as if these behaviors were natural, rather than learned.

Society, Culture, and Gender Roles

Cultural norms about gender roles are "delivered" to a child by the family, the peer group and the community. Young boys, for example, are generally allowed more freedom and have fewer restrictions placed on them than young girls. They are taught to play rough, to stand up for themselves, not to walk away from a fight. They run out to play while their sisters are kept indoors to care for younger children and to help with domestic chores. Since the moment we are born, we are being molded into the being society wants us to be. Through socialization we also learn what is appropriate and improper for both genders. Gender roles and expectations are learned. They can change over time and they vary within and between cultures. Gendered norms and behaviors are taught and learned rather than being natural or genetic. While mass culture likes to assume that there is a fixed, true masculinity, in fact, each societal construct of masculinity varies over time and according to culture, age and position within society.

The Social Context of Smoking

Social context is widely cited as integral to understanding why, how, where and with whom people smoke, and the non random social distribution of smoking. Yet it is rarely the direct object of investigation, and few comprehensive theoretical frameworks have been

advanced to assist in unpacking what social context is, how it can be empirically researched, and how social context impact on the nature and distribution of smoking within and between population subgroups. Most of the research and literature in tobacco control investigates smoking as an individual behavior, driven by the knowledge and attitudes of those who smoke, with attention to how these may be mediated by parental, peer, and/or media social influences, as well as broader socio cultural norms. Several more recent studies have examined how smoking fits into the lived experience of people's lives, embedded in the (sub)cultural contexts in which they live, work and play. Ethnographic research in the Philippines found females expressed emotional dependence on tobacco in the midst of life difficulties, while young urbanVietnamese women said they might start smoking if they become "very unhappy".

Gender and Smoking

Tobacco use has been patterned by gender. In many other countries around the world, particularly less developed countries, cultural and economic factors have prohibited women from taking up smoking in significant numbers. At a population level, male uptake generally occurs sooner than female uptake in most countries, coincident with higher socioeconomic status being a predictor of initial uptake and social norms that include smoking as a rite of passage for boys. These sex - specific patterns indicate the need and potential for global leadership regarding sex, gender and tobacco. Gender- based differences also exists for children and youth, whose tobacco use patterns may determine the shape of the epidemic for the next several decades.

Several avenues of research now indicate that men and women differ in their smoking behaviors. For instance, women smoke fewer cigarettes per day, tend to use cigarettes with lower nicotine content, and do not inhale as deeply as men. However, it is unclear whether this is due to differences in sensitivity to nicotine or other factors that affect women differently, such as social factors or the sensory aspects of smoking. In most of the world, being born male is the greatest predictor for tobacco use, with overall prevalence about four times higher among men than women globally (48% versus 12%).

There is evidence that women and men respond somewhat differently to nicotine. Female addiction maybe reinforced more by the sensory and social context of smoking, rather than by nicotine, suggesting that patches may not be so effective an aid. This may help explain why some studies have found that women quit less easily than men; other explanations include lackof social support, fear of weight gain, depression and hormones. Research suggests that men and boys perceive greater pressure than women and girls to accept the gendered stereotype that men should be rugged, robust and strong. Such concepts lead to a dangerous combinationof risk-taking

and lack of preventive health activities, with relevance for tobacco uptake, quitting and self-care. In many countries, smoking marks the transition to manhood, and is deeply embedded in everyday male social relations, both business and personal.

In May 2003, the 192 WHO Member States adopted the WHO Framework Convention on Tobacco Control (FCTC), a new legal instrument to address issues as diverse as tobacco promotion and sponsorship, illicit trade of tobacco products, tobacco taxes and agricultural diversification. The preamble to the WHO Framework Convention on Tobacco Control (WHO FCTC) states: 'The Parties to this Convention, …Alarmed by the increase in smoking and other forms of tobacco consumption by women and young girls worldwide and keeping in mind the need for full participation of women at all levels of policy-making and implementation and the need for gender-specific tobacco control strategies'.

Tobacco: the Leading Cause of Cancer

Over 2,000 chemical compounds are generated by tobacco smoke, many of them poisonous. Over 350,000 deaths occur each year in the US as a result of tobacco use, and 33 per cent of these deaths occur from smoking-related lung cancer alone. In fact, lung cancer can be reduced by 90 per cent if smoking is prohibited. Second hand smoke contains dangerous carcinogens as well, including benzene, radon, and asbestos. It is estimated that 20 per cent of lung cancers are caused by second hand smoke. Smoking increases harmful free radicals and lowers our immune system by suppressing the natural killer (NK) cells and IgA (Immunoglobulin A) antibodies. Tar, formed when organic compound is burned, is a leading cancer-causing compound found in tobacco. It contains highly toxic hydrocarbons and some radioactive compound like potassium-40 as well. These substances have been shown on a cellular basis to damage a tumor suppressor gene called p53 in lung cells, resulting in cancer. Carbon monoxide released during smoking reduces the oxygen supply to the brain, lung and heart. Smokers also have a lower circulating level of vitamin C, an important antioxidant that mops up free radicals.

The consumption of tobacco is the leading cause of cancers in India. The various cancers produced by the use of tobacco are of oral cavity, pharynx, esophagus, larynx, lungs and urinary bladder. It has been observed that women in Bangalore are known to have the highest rates of cancers of esophagus in the world (around eight per 100,000). Contrarily, men in Bhopal have the highest rate of tongue cancer in the world (nine per 100,000). Smoking is the most notorious factor for the causation of lung cancer. Approximately, 87 and 85 per cent males and females have been found to have lung cancer due to tobacco smoking in the form of *bidi* (a thin South Asian cigarette type structure filled with tobacco flake and wrapped in a *tendu* leaf, tied with a string at one end) and cigarette in India.

High incidences of stomach cancer in Mizoram are the result of the excessive use of *tuibur* (water filtrate of tobacco). Similarly, high incidences of oral cancers in Orissa and Madhya Pradesh are owing to the consumption of beetle leaves and tobacco in different forms.

Cancer in the *Mizo* Society

The Population Based Cancer Registry (PBCR) of the Indian Council of Medical Research (ICMR) consolidated report 2009-2010 states that the total number of cases registered between the year 2009-2010 was 2530 cases (both male and female combined). From this total number of new cases, cases from Aizawl district alone was 1331 cases and the number of new cases from other districts excluding Aizawl was 1199 cases. Thus, Aizawl district accounts for about 45 per cent of all cancer cases in Mizoram state combined. The total number of new cancer cases among males was 1393 cases, and the total number of new cases among females was 1137 cases. Male cancer accounts for 55 per cent of all new cancer cases, whereas female cancer accounts for 45 per cent of all new cases of cancer.

Stomach cancer was recorded as the first leading site of cancer among males, with a total number of 321 cases, accounting for 23.04 per cent of all new male cancer cases combined. Esophagus was the second leading site of cancer among males with a total number of 199 new cases, accounting for 14.29 per cent of all new cancer cases among males. Lung cancer was recorded as the third leading site of cancer among males, with the total number of 192 new cases, accounting for 13.78 per cent of all new male cancer cases combined. Among females, the leading site of cancer is the lung, with a total of 191 new cases and accounting for 16.7 per cent of all new cases. This was followed by stomach cancer, with a total of 156 new cases and accounting for 13.7 per cent of all new cases among females. The third leading site of female cancer is the cervix uteri, with 154 cases and accounting for 13.5 per cent of all new cancer cases.

Methodology

To study the social causes of cancer among the *Mizo* society, the researchers conducted an intensive study in the state of Mizoram.The study was conducted among the ethnic group in Northeast India known as the *Mizo*s (meaning the *Mizo* people) settling in the state of Mizoram. Samples are selected based on prerequisites, such as: - he/she belongs to the *Mizo* ethnic group, he/she has entered into legal adult age, he/she is a resident of Mizoram, and he/she has cancer diagnosed by an authorized physician. Primary data were collected throughout the years 2012 – 2015. A total of 200 cancer patients, all belonging to the *Mizo* ethnic group were interviewed with the help of a structured interview schedule (N=200). The study was completed across three hospitals in Aizawl namely, Mizoram State Cancer Hospital, Nazareth Hospital, and Grace Nursing Home. The Population Based Cancer Registry

(PBCR) of the Indian Council of Medical Research also offered secondary data essential to the study.This study seeks to identify the role of socialization in influencing attitude on and behavior related to tobacco and other health related attitude and behavior that contributes to the risk of cancer. This study is based on the principle that culture is learned, shared, and preserved by society. This study seeks to identify the ways in which culture affects health outcomes by influencing lifestyle and beliefs pertaining tobacco consumption. This study is also framed with the belief that society plays a huge role in creating and maintaining gender roles and gender gaps in society. Questions regarding gender roles include gender differences in type and amount of tobacco consumed, dietary habits, and other behavioral factors that impact on health outcomes.

Ethnicity of the *Mizo*s: The *Mizo*s are a small ethnic group living in a state in Northeast India called Mizoram. Historians claim that the *Mizo*s are a part of the great waves of 18th Century immigration from Tibet and Yunnan province of China into eastern and southern India. It is believed that the *Mizo*s had earlier migrated into Burma before moving in to India. The British missionaries introduced Christianity to the *Mizo*s, which continues to remain as the religion of the majority to this day, with 86.97 per cent of the population being recorded as Christians. In terms of caste, 95 per cent of the total population of Mizoram belongs to the Scheduled Tribe.

The Place: Mizoram and Aizawl: Aizawl is the state capital of Mizoram. Mizoram is one of the states of India located in the Northeast part of the country. It has a total area of 21,081 sq km. Mizoram has a population density of 52 persons per sq.km according to Census of India 2011, Mizoram's population has reached approximately 10.91 lakh and contributes to only 0.09 per cent of the total population of India. Mizoram has a literacy rate of 91.58, which is above the national average of 74.04 per cent. The state has a GDP of INR 45,982 as per 2011 record.

Tobacco Scenario in India and Mizoram

National Tobacco Scenario

According to The Global Adult Tobacco Survey (GATS) 2009 – 2010, tobacco is used (in any form) by 34.6 per cent of adults in India, 47.9 per cent of males and 20.3 per cent of females. Tobacco is currently smoked by 14.0 per cent of adults; 24.3 per cent of males and 2.9 per cent of females. Cigarette is currently smoked by 5.7 per cent of adults; 10.3 per cent of males and 0.8 per cent of females. Bidi is currently smoked by 9.2 per cent of adults; 16.0 per cent of males and 1.9 per cent of females.Smokeless tobacco is currently used by 25.9 per cent of adults; 32.9 per cent of males and 18.4 per cent of females. Average age at daily initiation of tobacco use is 17.9 years in adults, 18.1 years in males, and 14.7 years in females, and 60.1 per cent of daily tobacco users consume tobacco within half an hour of waking up.

The North-East region exhibits highest rates of tobacco use going up to over 63 per cent prevalence in some states. In Assam 23 per cent women, 72 per cent of man use any form of tobacco and 36 per cent use cigarettes/bidis.

Tobacco Scenario in Mizoram

In the state of Mizoram, The Global Adult Tobacco Survey (GATS) 2009 – 2010 recorded that tobacco is currently used (in any form) by 67.2 per cent of adult s; 72.5 per cent of males and 61.6 per cent of females. Tobacco is currently smoked by 39.7 per cent of adults; 59.4 per cent of males and 19.0 per cent of females. Cigarette is currently smoked by 37.2 per cent of adults; 5 06.6 per cent of males and 16.9 per cent of females. Bidi is currently smoked by 6.1 per cent of adults; 7.9 per cent of males and 4.3 per cent of females. Smokeless tobacco is currently used by 40.7 per cent of adults; 32.6 per cent of males and 49.1 per cent of females. The average age at daily initiation of tobacco use is 16.9 years in adults, 16.6 years in males, and 21.3 years in females, and 66.7 per cent of daily tobacco users consume tobacco within half an hour of waking up.

The Significance of Tobacco in the Mizo Society

Tobacco has an important place in the *Mizo* society. It has become an object of commensality, a token of friendship and generosity. It is a symbol of gender identity and symbolizes gender roles.Tobacco is an essential commodity at home and in the larger community living. The *Mizo* society is a traditionally agrarian community; tobacco cultivation has a very special place in this agrarian community. It is a traditional practice among the *Mizos,* to not only consume tobacco in various forms, but also to cultivate it, and prepare it domestically. Tobacco cultivation is still popular particularly in rural agrarian communities today. However, the consumption of it shows little or no difference across the rural and urban population. There is a common phrase in the *Mizo* society that says *"Ni aw sa sa, vaihlo pho na'n, buh pho na'n"*which is a phrase of pleading for sunlight so that tobacco and paddy can be laid out for sun drying in the open. This phrase, among many others, reflects the day to day task among the highly agrarian community, in the process of tobacco cultivation and production. This is one of other examples that manifests the important place tobacco has in the *Mizo* society. Tobacco is consumed in smoking form, smokeless form, as well as in liquid form.

Forms of tobacco consumption in the *Mizo* society may be listed out as follows:

· *Meizial/Zozial*: This refers to the traditionally cultivated and prepared smoking tobacco. In this form of tobacco consumption, tobacco leaves are rolled into cylindrical shape over a thin sheet of paper; the edges are pinched to hold the tobacco in, and is then fastened with a thread.

· *Sahdah*: *Sahdah* is a form of smokeless tobacco where tobacco leaves are minced into fine pieces and moistened with rum or other elements.

· *Tuibur*: This refers to liquid extract of tobacco. It is consumed by holding the liquid in the mouth and is then spat out after savoring. It is popularly consumed for its aroma.

· Other Manufactured Tobacco Products: Tobacco products from all over the world reach the state of *Mizoram* although luxury brands have not made formal entry in the state. Cigarettes from neighboring states like Assam are popular among the *Mizos*. Smokeless manufactured tobacco products from factories around the country are also prevalent.

Gender and Tobacco in the Mizo Society

Though tobacco in itself is a genderless substance, traditionally established gender roles regarding the production and consumption of tobacco have been well defined in the *Mizo* society. The relationship between gender and tobacco in the *Mizo* society may be listed out as follows:

· Women make *zozial* and men smoke: In the *Mizo* society women and older girls are expected to acquire the skill of preparing *zozial* (traditional smoking tobacco). For a woman to lack this skill is traditionally considered unacceptable and displeasing. It is the role, even today, of the mothers or wives to roll out tobacco for the male members of the family such as their husband, father, sons, brothers, or other male members of the household.

· Smoking is appropriate for men but not for women: Smoking is considered as a male appropriate behavior but smoking by women is considered socially displeasing and inappropriate. There is a wide gender gap between the two genders in terms of which type of tobacco can be attributable to which gender group.

· Smokeless tobacco products are attributed to females: Smokeless tobacco substances such as *sahdah* and *tuibur* are considered more appropriate for females although currently a huge percentage of male are currently consuming it.

Findings

The research population consisted of 200 diagnosed cancer patients who belong to the *Mizo* ethnic group, and are currently attending hospitals for treatments within the state of Mizoram (N=200). Of all the cancer patients, 55.5 per cent are male and 44.5 per cent are female (M=55.5%, F=44.5%).

On tobacco prevalence:The total number of population who consume both smoking and non-smoking forms of tobacco accounts for 51 per cent of the population and 30.0 per cent consume only non-smoking forms of tobacco. Smoking tobacco without non-smoking forms of tobacco is consumed by 11.5 per cent of the population. Individuals who do not consume any form of tobacco account for 7.5 per cent.

Zozial is smoked by 27 per cent of the population. Cigarette and *Zozial* are smoked together by 22.5 per cent of the population and 13 per cent smoke only cigarette.

On smokeless tobacco and betel nut consumption: 27 per cent of the population consume betel quid without tobacco, 19.0 per cent of the population do not consume non-smoking forms of tobacco. Betel quid is consumed in combination with tobacco – (*Sahdah* and *Tuibur)* by 19.5 per cent of the population. *Sahdah* is consumed by 16.5 per cent of the population, 10.5 per cent consume all forms of non-smoking tobacco, *Tuibur* and *Sahdah* are consumed in combination by 4.0 per cent and *Tuibur* only is consumed by 3.5 per cent of the population.

On smoking behavior and amount of smokeless tobacco consumed: Addicted smokers account for 34 per cent of the respondents. Chain smokers account for 22.5 per cent.Habitual smokers account for 4 per cent of the respondents. Occasional smokers account for 2 per cent.On smokeless tobacco, 61.5 per cent of the respondents are heavy users. Light users account for 19.5 per cent and 19 per cent are non-users.

Age of initiation of tobacco consumption:89 per cent of the respondents started taking tobacco at teenage and 3.5 per cent started taking tobacco between the ages of 20 to 30.

On Gender Roles in Tobacco: In this population, 90 per cent of the respondents believe that gender roles exist in tobacco consumption (smoking is appropriate for male but not for female, smokeless tobacco is appropriate for female more than for male) and 10.0 per cent holds the view that no gender role exist in the consumption of tobacco.

Cancer across the Gender Landscape in the Mizo Society

High Prevalence of Lung Cancer among Male: Male respondents with lung cancer account for 11.5 per cent of the respondents and female respondents with lung cancer account for 3.0 per cent. Male respondents with no lung cancer account for 44.0 per cent of all respondents and female respondents with no cases of lung cancer account for 85.0 per cent of the total population. Overall, lung cancer was present in 14.5 per cent of the total population and absent in 85.5 per cent of the total population.

To test the association between gender and lung cancer, chi-square test was conducted. Chi-square test gave the result: C2 1,N=200 =7.7=.005. According to this test, there is a significant association between gender and lung cancer. Lung cancer is more prevalent among male than among the female respondents.

Smoking is More Prevalent among Male: Male who smoke account for 41.5 per cent of the total population and 21.0 per cent of respondents are female who smoke. Among the population, 14.0 per cent consists of male who do not smoke

and 23.5 per cent consists of female who do not smoke. Overall, 62.5 per cent of the total population smoke and 37.5 per cent do not smoke.

To test the association between gender and smoking tobacco, chi-square test was conducted. Chi-square test gave the result: C2 1,N=200 =16=.000. According to this test, there is a significant relationship between gender and smoking tobacco. Smoking tobacco is more prevalent among male than among female.

Smokeless Tobacco is More Prevalent among Female: Female respondents who consume smokeless tobacco account for 31.0 per cent of the respondents while their male counterparts account for 22.0 per cent of the total population. Male and female respondents who do not consume smokeless tobacco account for 33.5 and 13.5 per cent of the total population respectively. Overall, 53.0 per cent of the population consumes smokeless tobacco and 47.0 per cent of the population does not consume smokeless tobacco.

To test the association between gender and smokeless tobacco consumption, chi-square test was conducted. Chi-square test gave result: C2 1,N=200 =17=.000. According to this test, there is a significant association between gender and smokeless tobacco consumption. Smokeless tobacco consumption is more prevalent among female than among male.

Domestic Preparation of *Zozial* by Mothers or Wives: In 33.5 per cent of the households, mothers or wives make *zozial* for their husbands. Mothers or wives make *zozial* for husband and sons in 7.0 per cent of the families. Households where mothers or wives never make *zozial* for the family account for 59.5 per cent of the households.

Conclusions

Gender roles exist in every society. From cooking, hunting and gathering, fixing electrical appliances at home, to driving, and to leadership, gender roles determine what is traditionally considered appropriate for male and female and distribute responsibilities accordingly across the gender landscape. Mizoram is no exception, and tobacco consumption is only one such manifestations of gender roles. As per this study, male smoking and female consuming smokeless tobacco are both considered as socially approved behaviors. This is one such way of how society gets into the body as these behaviors have different bearings on health outcomes. Therefore, cancer is considered a social problem that needs not only a change of diet and lifestyle, but to address a preventable disease that requires major personal and social adjustment.

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