

Cultural Consideration in Epidemiological Studies

SREEDHAR REDDY¹ and M. ANITHA²

Department of Public Health Dentistry, Tagore Dental College and Hospital,
Rathinamangalam, Melakottaiyur Post, Chennai – 600127, India

*Corresponding author E-mail : drpsreddy84@gmail.com

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ABSTRACT

Culture influence the patterning of disease through many pathways, ranging from who is counted to what is noticed to where people obtain help for suffering. Profound interactions take place between the disciplines of medical anthropology and epidemiology, among others. Anthropological research has shed light on why people smoke, consume alcohol, take narcotic drugs, mutilate their bodies, avoid nutritious diets, reject contraceptives advice, have dangerous pastimes and follow stressful occupations or lifestyles.

Key words: Epidemiological, pathways, ranging, disciplines.

INTRODUCTION

Culture influence the patterning of disease through many pathways, ranging from who is counted to what is noticed to where people obtain help for suffering. Profound interactions take place between the disciplines of medical anthropology and epidemiology, among others. Both epidemiology and medical anthropology are scientific disciplines that search for pattern of disease and behavior. They both have humanity at their core. The disciplines are separated by history and tradition, epidemiology tends to be statistical and quantitative, anthropology textual and qualitative, but this text brings them together¹.

Epidemiology is the study of the distribution and determinants of various forms of disease in human populations. Members of this discipline produce descriptions of health and disease patterns and trends rather than laboratory experiments or case reports. They focus on populations using statistics and probabilities. A significant part of the practice of epidemiology consists of trying to separate out the patterns of disease and exposure from patterns caused by data

collection methods. They describe disease patterns using data about the past or data collected from the present in to future¹.

Like epidemiologists, medical anthropologists also search for patterns of disease, but they find them in culturally patterned response to disease. Medical anthropologists study the afflictions facing humankind and how human groups organize themselves to treat and explain the cause of suffering. They analyze the understanding and interpretations of healing, illness, and health, as well as the environmental, biological, behavioral, and cultural determinants of disease. To do so, they use a variety of methods including long and short term field work, structured observations, open ended interviews and a variety of surveys and group interview techniques².

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Culture influences the human health and the patterning of disease. Our total way of life (*work, food, activities*), combined with the learned behavior (*including knowledge, lies and misunderstandings*), our technique for adjusting to the environment, and our ways of feeling and believing, all influence our susceptibility to illness. As seen in an example that migrant farm workers have different disease than coal miners.

The influence of culture can be seen in how people react for symptoms before they receive a diagnosis. Groups vary in their willingness to undertake preventive measures; vary in how they perceive and classify symptoms³.

Yet cultural meanings are also local and contested. This aspect of culture highlights its dynamic, changing quality and gives weight to forces of change and interaction. From this perspective, culture is constantly being transformed. People within groups may be aware of group norms, but those norms themselves change over time, and people choose to reject the norms or manipulate their behavior within them⁴.

These cultural factors, where they can be identified, are often difficult to quantify and are therefore less attractive to medical epidemiologists and statisticians. Nor there is there a neat, measurable 'dose-response' relationship between a particular cultural factor and a particular disease, as there might be between a pathogenic organism and the disease that it causes. Nevertheless, despite this difficulty in quantifying cultural factors; there is sufficient evidence available to confirm their role in the development of disease, even if this role is contributory rather than directly causative. It also be noted that, in some cases, cultural factors may protect against ill health⁵.

Cultural factors in the epidemiology of disease

Cultural factors can be causal, contributory or protective in their relation to ill health. This list is not meant to be exhaustive, but rather a selection of those factors most commonly examined by anthropologists and epidemiologists².

Family structure

This includes

- a) Whether nuclear, extended, joint or one parent families are the rule
- b) The degree of interaction, cohesion and mutual support among family members
- c) Whether the emphasis is on familial rather than on individual achievements
- d) Whether responsibility for child-rearing, the provision of food, and care of the elderly, sick or dying is shared among family members.

Gender roles

This includes

- a) The division of labour between the sexes, especially who works, who remain at home, who prepares the food, and who cares for children
- b) The social rights, obligations, and expectations associated with the two gender roles.
- c) Cultural beliefs about the behavior appropriate to each gender (*such as alcohol consumption, smoking and competitive behavior being regarded as natural for men but not for women*)
- d) The threshold for consultation with a doctor for each of the genders
- e) The degree of medicalization of the female cycle.

Marriage patterns

This includes

- a) Whether monogamy, polygamy or polyandry are encouraged
- b) Whether the levirate or sororate are practiced
- c) Whether marriage is endogamous (*where individuals must marry within their families, kin-group, clan or tribe*) or exogamous (*where they must choose a partner from outside these groups*)

Sexual behavior

This includes

- a) The age of first sexual relationships
- b) Whether promiscuity, pre- or extramarital sexual relations are encouraged or forbidden

- c) Whether these sexual norms apply to men, to women or to both
- d) Whether special sexual norms (*such as celibacy or promiscuity*) are applied to restricted groups within the society (*such as nuns or prostitutes*)
- e) Whether recourse to prostitutes is socially acceptable or not
- f) Whether homosexuality, both male and female, is tolerated or forbidden
- g) Whether certain sexual practices (*such as anal intercourse*) are regarded as acceptable or not
- h) Whether there are taboos on sexual intercourse during pregnancy, menstruation, lactation or puerperium

Contraceptive patterns

Cultural attitudes towards contraception and abortion, a taboo on both of these enlarges family size, and in some cases may have a negative effect on maternal health. Attitudes to the use of condoms and others forms of barrier contraception may influence the spread of sexually transmitted diseases.

Population policy

This includes cultural beliefs about the optimal size of the family and the gender of its children, the incidence of infanticide and illegal or self induced abortion may be related to these beliefs.

Pregnancy and childbirth practices

This includes

- a) Changes in diet dress or behavior during pregnancy
- b) The techniques used in childbirth and the nature of the birth attendants
- c) The position of the mother during labour
- d) Care of the umbilical cord (*in some cultures, neonatal tetanus can result from the practice of applying dung as a dressing to the newly cut umbilical cord*)
- e) Customs relating to the puerperium, such as social isolation or the observance of special taboos
- f) whether breast or artificial infant foods such as powdered milk are preferred

Child-rearing practices⁶

This includes

- a) The emotional climate of child-rearing, whether permissive or authoritarian
- b) The degree of competitiveness encouraged among children (*which may be related to mental illness, suicide attempts and development of the type A coronary prone behavior pattern in later life*)
- c) The degree of physical or emotional abuse regarded as normal by the society
- d) Initiation rituals carried out after birth and at puberty

Body image alterations

This includes

- a) Culturally sanctioned bodily mutilations or alterations, such as male or female circumcision, scarification, tattooing, ear and lip

Religion

This includes

- a) Whether a religion is characterized by a coherent, reassuring world-view
- b) Whether it requires such religious practices such as fasts, food taboos, ritual immersions, communal feasts, circumcision, self-mutilations or flagellation, fire-walking, or mass pilgrimages, all of which may be associated with the incidence of certain diseases.

Culturogenic stress

- a) Whether culturogenic stress is induced, or aggravated or sustained by the culture's values, goals, hierarchies of prestige's of individuals, norms, taboos or expectations
- b) Whether the culture fosters work holism or more relaxed attitudes to daily life
- c) Whether there are conflicts between the social expectations of one generation and those of next.

Migrant status

This includes

- a) Whether the immigration was voluntary (*'pull'*), as with economic migrants, or involuntary (*'push'*), as with refugees
- b) Whether migrants have adapted to their new culture in terms of behavior, diet, language

- and dress
- c) Whether they are subject to discrimination, racism or persecution by the host community
 - d) Whether their familial structure and religious world- view remain intact after migration
 - e) Whether they have access to their familiar religious figures or traditional healers
 - f) The culture of the host community, especially its attitude to immigrant populations.

Seasonal travel

- a) This includes regular, seasonal patterns of mass migration, whether of tourists, pilgrims, nomads or migrant workers. While nomads usually migrate as a community, tourists and migrant workers often migrate as individuals or in small social units. In both cases, absence from community, family and home may sometimes predispose to high rates of alcoholism and/ or sexually transmitted diseases (*such as AIDS and hepatitis B*).

Use of 'chemical comforters'

This especially includes

- a) Cultural values associated with smoking ,alcohol, tea, coffee, snuff, prescribed and non-prescribed drugs, and the use of hallucinogens as sacramental drugs
- b) The use of intravenous "hard" drugs by an addict sub-culture and the prevalence of needle- sharing among those groups (*relevant to the spread of both hepatitis B and AIDS*)
- c) The use of more contemporary designer' drugs, such as 'Ecstasy'.

Leisure pursuits

This especially includes

- a) The various forms of sport, recreation and tourism
- b) Whether these involve physical exercise or not
- c) Whether they are competitive or not
- d) Whether they are associated with the risks of injury or disease
- e) Whether they involve prolonged exposure to sunlight (*and ultraviolet radiation*).

Domestic animals and birds

This includes

- a) The nature and number of pets and domestic livestock
- b) Whether they are kept within the home or outside
- c) The degree of direct physical contact between individuals and these animals²

Self treatment strategies and lay therapies

- a) This includes all the treatments used within the popular and folk sectors such as the use of herbal remedies by traditional healers, patent medicines, special diets, bodily manipulation, injection and cupping.
- b) Lay healing that takes place in a public ritual, rather than a private consultation, may predispose to spread of infectious diseases.
- c) Certain alternative therapies, such as acupuncture, may be implicated in spread of hepatitis B and other infections.
- d) It also includes cultural attitudes to medical treatments and preventive strategies, such as antibiotics, oral rehydration therapy and immunization^{7,9}.

Funerary customs

This concerns especially

- a) How and when the dead are disposed of, and by whom
- b) Whether the corpse is buried or cremated immediately or displayed in public for sometime
- c) The site of burial, cremation or display of the corpse, and whether these are near to residences, food or water supplies⁸.

Economic situation

This includes

- a) Whether wealth is evenly distributed throughout the society
- b) Whether the sample group is poor or wealthy relative to other member of the society
- c) Whether income is sufficient for adequate housing, nutrition and clothing
- d) The cultural values associated with wealth, poverty, employment and unemployment.
- e) Whether the basic economic unit (*of earning, accumulating and sharing wealth*) is the individual, the family or a larger collectivity^{9, 10}.

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