Chapter III  
REVIEW OF LITERATURE

After the formulation of research problem, the researcher undertook an extensive literature survey related to the problem. The earlier studies, which are relevant to the present study, were carefully interviewed. The researcher devoted sufficient time for this work. This indeed helped him to have a better understanding of the perspectives of the research problem. By reviewing various theoretical works and empirical studies, the researcher was able to identify the research gaps in order to fill those gaps of information in his work. In this regard, the researcher made an attempt to review various theoretical and empirical studies to facilitate the present study. The highlights and major findings of those studies have been summarized in this chapter.

Metz and others made an effort to avert the cumulative effects of unresolved emotional problems on children’s social and school adjustment, a psychosocial phase was added to a pediatric multiphasic examination. Based upon a cumulative stress concept, the screening procedures included child behavior and family stress questionnaires for parents, and abbreviated standard psychological tests for children, administered by specially trained aides. Computerized results were reported to the child’s pediatrician. Follow-up by mental health counselors attached to the pediatric clinic was provided for patients identified as being at high risk of serious psychosocial problems. Evidence of validity of the screen, factors affecting the scores, and effectiveness of clinical follow-up of high-risk patients are discussed. Valid semi-computerized screening of school-age children for serious psychosocial problems can be carried out routinely and at relatively low cost by paraprofessional personnel in a pediatric setting. Impediments to effective
use of the screening results on the part of both health care provider and patient are discussed.¹

Cole and others present a classification and coding system of psychosocial problems gleaned from a number of existing coding systems. Disease and problem classification systems for primary care have recognized that psychosocial problems are integrally related to more traditional medical problems which patients present to physicians. The purpose of presenting it here is to contribute to a dialogue which will result in the establishment of a common psychosocial language for all health professionals.²

Williamson and others although trained in family medicine emphasizes that a biopsychosocial approach to patients that many residents experience difficulties in carrying out the appropriate psychosocial part of their diagnosis and treatment. There are a set of core tacit beliefs which inhibit physicians from thinking psychosocially about their patients. These beliefs appear to be rigidly held but not examined or challenged. By making overt these tacit assumptions, this study attempts to highlight core barriers to the implementation of bio-psychosocial care, increase understanding of effective alternatives,

and challenge the physicians to examine their hidden beliefs about patient care and their approach to patients.³

Cassata and Kirkman-Liff made a questionnaire survey of residency trained graduates and non-residency trained family physicians which showed both groups reporting relatively infrequent practice of behavioral medicine. Referrals and counseling sessions/visits produce a combined total of 20 activities per month, or two to four percent of all patient encounters, even though the physicians in the sample reported that 33 percent of their diagnoses were behavioral/psychological. More than 85 percent of the physicians reported access to more than one mental health provider. The six most common health problems encountered in the office were depression, anxiety, obesity, marital discord, alcohol abuse, and sexual problems.⁴

Epstein and others present four approaches that are currently used as the basis for clinical training and research, summarize the progress made in forming a consensus, and outline the implications of these perceptions for practicing physicians. Until recently, the content, structure, and function of communication between doctors and patients has received little attention and has been excluded from the realm of scientific inquiry; as a result, most clinicians have had little formal training in communication skills.⁵


Levinson and others explored the nature of practicing physicians’ 'frustrating' visits and a guide to help physicians identify problems in communicating with patients was developed. The study included 1,076 practicing physicians who attended a voluntary workshop on physician-patient communication. The method included development of a preliminary item pool (descriptions of frustrating patients and occasions) by experienced physicians and teachers of medical communication, additions/deletions/revisions of items within the pool, empirical analyses to reduce redundancy and group-like items, and construct validation of the final 25-item questionnaire. Factor analysis was used to identify subscales. Physicians most often attributed communication problems to the patient rather than to their own limitations. Seven types of communication problems (subscales) were identified, including: 1) lack of trust/agreement, 2) too many problems, 3) feeling distressed, 4) lack of understanding, 5) lack of adherence, 6) demanding/controlling patient, and 7) special problems. Primary care physicians reported greater problems than specialists on four subscales. Physicians practicing in health maintenance organizations reported greater problems than physicians in fee-for-service practice on five subscales. It was identified that the physicians experience seven sources of frustration in their work with patients.6

Arnold observes the onset of famine in nineteenth–century India resulted in the breakdown of normal social relations and produced a series of often dysfunctional behavioural responses. Survival strategies like the use of ‘famine foods’ and migration in search of food and work facilitated the spread of such epidemic diseases as cholera.

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dysentery, malaria, and smallpox. Although many of these diseases are not normally thought of as having a synergistic relationship with malnutrition and hunger, they were linked to it through abnormal social and environmental conditions created by drought and an extreme crisis of subsistence.⁷

Beckman and others pinpoint “The four core skills - active listening, soliciting attribution, providing support and establishing agreement - are at the heart of the model of co-participation between physician and patient. Used effectively, they provide a mutually satisfying environment in which psychosocial as well as biologic aspects of a problem can be explored in a humane, caring and surprisingly efficient way.”⁸

Link and Phelan emphasize on individually-based risk factors and argue that greater attention must be paid to basic social conditions if health reform is to have its maximum effect in the time ahead. Over the last several decades, epidemiological studies have been enormously successful in identifying risk factors for major diseases. However, most of this research has focused attention on risk factors that are relatively proximal causes of disease such as diet, cholesterol level, exercise and the like. Without careful attention to these possibilities, we run the risk of imposing individually-based intervention strategies that are ineffective and of missing opportunities to adopt broad-

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based societal interventions that could produce substantial health benefits for our citizens.\(^9\)

Coleman and Howard explain that whenever a behavioral or psychosocial problem is present in a child, all members of the family are affected. Conversely, when the problem lies within the family, the child is affected and often presented as the symptomatic patient. Family-focused strategies provide an effective, brief, and timely approach that can aid the pediatrician in helping children and their families function in more healthy and satisfying ways.\(^{10}\)

Mckee and others try to find out and determine factors predictive of failure to return for colposcopy among women with significant abnormalities on Papanicolaou smears in a high-risk clinical population. Two hundred and seventy-nine women were randomly selected from among the women seen at the health center with abnormal Papanicolaou smears requiring colposcopy during 1993 to 1994. Six (2\%) refused participation, and 19\% could not be reached for inclusion. Subjects were mostly minority women receiving Medical aid. Of the selected 279 women, 79\% were interviewed. The rate of adherence with colposcopy was 75\% of the respondents. Women who did not know the results of their smear or who incorrectly understood their results were significantly less likely to return for colposcopy (\(P = .001\)). Younger women, especially

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teenagers, were less likely to return (P = .02). Socioeconomic status, education, primary language, health beliefs, fear of cancer, and clinician’s gender or discipline were not associated with the rate of follow-up. Barriers involving transportation, child care, and insurance also did not predict the follow-up. Effective communication of results is the most important factor related to the follow-up after abnormal Papanicolaou smear in this setting. In other settings, other factors may be of greater importance.\textsuperscript{11}

Uchino and others examined the potential influence of social support on age-related differences in resting cardiovascular function and the potential mediators responsible for such associations in 67 normotensive women and men. Consistent with prior research, age predicted increased resting systolic blood pressure (SBP) and diastolic blood pressure (DBP). More importantly, regression analyses revealed that social support moderated age-related differences in resting SBP and DBP, as age predicted higher resting blood pressure for individuals low in social support, but was unrelated to blood pressure for individuals high in social support. An examination of potential pathways revealed that these results were not mediated by various health-related variables, personality factors, or psychological processes. Implications for the study of social support and health are discussed.\textsuperscript{12}

Molassiotis made a study among 8 women with breast cancer who were receiving chemotherapy with doxorubicin and cyclophosphamide. They were given standard oral anti-emetic medication (Maxolon). Half of the patients were


randomly assigned to also receive PMRT. A trained nurse guided these patients through a PMRT session once a day for 5 days. Both groups of patients received anti-emetic medication intravenously 30 minutes before they took their chemotherapy drugs. Nausea and vomiting were assessed on the Morrow Nausea and Vomiting Scale. Statistically, differences between the two groups of patients were borderline, but there were trends towards a shorter duration and a lower intensity of both nausea and vomiting in the group that also received PMRT. Both groups of patients experienced delayed nausea and vomiting due to their [anti-nausea and anti-vomiting] treatments.\(^\text{13}\)

Magill presents case examples demonstrating, lifting, transporting and bringing of peace qualities of music, which can offer patients moments of release, reflection and renewal. The experience of pain in patients with advanced cancer is affected by physiological, psychological, social and spiritual factors. Patients are less able to cope with pain (i.e. suffer) when it is associated with impending loss, increased dependency and a changed perception of their life’s purpose. Comprehensive pain management is aimed at improving comfort, peace of mind and quality of life. Music therapy can offer a range of benefits to patients suffering with pain due to advanced cancer. To design comprehensive treatment programmes, music therapists review patients’ social, cultural and medical history, their current medical status, and how emotions affect pain. Therapeutic techniques used may include vocal, listening and instrumental approaches.

The various techniques of music therapy enable therapists and patients to explore feelings and issues that compound the patient’s experience of pain.\textsuperscript{14}

Lagiou and others believed it more likely to be able to identify nutritional factors affecting the risk of developing prostate cancer in younger patients, whereas such factors that might affect progression of the disease would be more apparent in older patients. Components of the diets of 320 patients with prostate cancer and 246 controls (with no systemic disease), hospitalized in 6 major hospitals in Athens, Greece, were analysed. Separate logistic regression models were fitted for men under 70 years of age and men of 70 years or older. Polyunsaturated fats substantially increased the risk of developing prostate cancer in younger subjects, but had a minimal role in the progression of the disease in older subjects. Cooked tomatoes were strongly protective in older subjects, but not in younger ones. Vitamin E strongly protected against prostate cancer for younger subjects, but not against progression for older subjects\textsuperscript{15}.

Brown and others have been many studied the dietary interventions for preventing cancer. Guidelines on diet, nutrition and cancer prevention, published by the American Cancer Society, are updated as new evidence emerges. Other groups have also issued statements or guidelines on nutritional strategies for preventing cancer. There is little information, however, concerning optimal nutrition for cancer survivors. This report summarises the available evidence on optimal nutrition choices at different stages of


cancer survival and reviews popular complementary and alternative methods that use dietary intervention. Nutritional information relevant to common cancer sites is also given.\footnote{Brown, J. et al. 2001. Nutrition During And After Cancer Treatment: A Guide For Informed Choices By Cancer Survivors. \textit{A Cancer Journal For Clinicians}, 51: 3, 153-87.}

Singh and Rahman made an attempt to examine the occurrence of malaria and related environmental issues in a small town of India. Aligarh city, lying in the shadow of the country's capital New Delhi, was selected for case study. Malaria is one of the most widespread diseases in the world. Endemic malaria no longer occurs in many temperate zones as a result of social and economic improvement. At present malaria is the Third World's most dreaded killer. It kills over 1 million people and causes 300–500 million episodes of illness. In India, malaria-reported deaths have shown an upward trend. In 1955, a drive to eradicate malaria was launched in India. But after initial success it failed and malaria made a comeback. Malarial mosquitoes generally prefer unpolluted natural breeding sites but now they have adapted to the changed urban environment. Data were collected mainly from household surveys with the help of questionnaire interviews. About 2,185 households belonging to different income groups were sampled. The differences in the occurrence of malaria in the different income households (in 87% low, 69% lower-middle, 65% middle, 14% upper-middle, and 5% upper) suggest that most of these differences are related to the environmental conditions existing inside and outside their homes, such as poor drainage system, poor sullage disposal, open blocked drains, waterlogging and indoor water storage in open containers. Commitment both by the
government and the local residents is needed to improve the environmental conditions and eradicate malaria.\textsuperscript{17}

Maillard and others states that epidemiological studies have investigated the possibility that dietary n-3 PUFAs may protect against the development of breast cancer, but the results of these early studies were inconclusive. Subjects were 241 patients with invasive non-metastatic breast cancer, and 88 patients with benign breast lumps who acted as controls. The investigators analysed the levels of fatty acids in adipose tissue, taken to be an indicator of the patients past dietary consumption levels of fatty acids. Samples of adipose tissue were taken at the time of breast surgery. Individual fatty acid levels, expressed as a percentage of total fatty acids, were measured. Odds ratio estimates of breast cancer risk were calculated using unconditional logistic regression modelling. Data were adjusted for possible confounding factors such as age, height, menopausal status and body mass index. The results suggest that n-3 fatty acids are protective against breast cancer and lend credence to the view that the ratio of n-3 to n-6 fatty acids is important in the development of breast cancer.\textsuperscript{18}

Montgomery and others reveal about many thousands of women per year undergo breast biopsies to investigate the possibility of breast cancer, suffering the pain of the procedure and distress due to the threat of cancer. Hypnosis has been shown to be


effective in controlling pain associated with other types of surgery, but there has been little study of its effect in breast surgery. The present study examined the effect of brief surgical hypnosis on postsurgical pain and distress in women undergoing breast surgery and explored possible mechanisms mediating the effects of hypnosis. 20 women undergoing excisional breast biopsy were randomly assigned to receive presurgical hypnosis or standard care (control group). Women who underwent presurgical hypnosis experienced less postsurgical pain and distress. Initial findings indicate that the beneficial effects of hypnosis were mediated by the women’s presurgical expectations.19

Gwyn and Sinicrope observe in the USA, colorectal cancer is the third most frequent form of cancer and is the second most common (behind lung cancer) causing of deaths due to cancer. The development of colorectal cancer is characterized by progressive histopathological and molecular genetic changes, a process that offers a multitude of stages in tumourigenesis at which preventive strategies can be targeted. Chemopreventive agents must be effective, safe, well tolerated and relatively cost effective. At present they cannot be recommended for average-risk individuals or those with sporadic colorectal neoplasia. Chemoprevention is still in its infancy, but developments are advancing rapidly. In the future, chemopreventive strategies may trigger important changes in our approach to colorectal cancer.20

Hay, J. P. and Psiquiatr, B., aim to provide an overview of development of epidemiology in the area of eating disorders, from studies of incidence and prevalence, through to community based prospective as well as case controlled studies; to summarize the current status of incidence and prevalence of eating disorders; to discuss analytic epidemiological studies of eating disorders, with a focus on community-based studies of risk factors and nosology; and to point to future areas for study, notably the social and economic burden and general population "mental health literacy" of people with eating disorders. In spite of problems in identifying and recruiting sufficient numbers of people with anorexia nervosa and variable methods of case-ascertainment, studies of incidence and prevalence of eating disorders have reached a general consensus and do not in general support a current rising incidence, except possibly a small increase in anorexia nervosa in young women. The application of analytic epidemiologic methods has lead to a greater understanding of environmental and genetic factors, as compared with social and economic factors, to the risk of developing eating disorders, and aided the refinement of eating disorder nosology as well.21

Link and Phelan describe McKeown and idea of social conditions causes of diseases. McKeown sought to explain a very prominent trend in population health and did so with a strong emphasis on the importance of basic social and economic conditions. If Colgrove is right about the McKeown thesis, social epidemiology is left with a gapping hole in its explanatory repertoire and a challenge to a cherished principle about the importance of social factors in health. They focused upon—post-McKeown and post-

Colgrove—to indicate how and why social conditions must continue to be seen as fundamental causes of disease.\textsuperscript{22}

Chagiashvili and others examines the importance of depression and social support in patients with exercise-induced myocardial ischemia. They investigated 60 patients, who underwent symptom-limited exercise treadmill ECG testing. Depressed patients had more physical limitation, more frequent angina, less satisfaction with treatment for coronary artery disease, less perceived quality of life, than non-depressed patients. 6 unemployed patients with low social support had the high level of depression (ESP score of 16 or higher). The study emphasizes the importance of social and life stressors in development of depression in patients with cardiac disease.\textsuperscript{23}

Fernández and others reveal that tobacco is the most important preventable cause of mortality in European countries, accounting for over half a million deaths per year. A review is presented on the epidemiology of tobacco smoking in Europe, using a comprehensive approach on the health effects of smoking, the prevalence of tobacco consumption, and its evolution in the past decade. Tobacco industry efforts to promote and maintain smoking through production and pricing are also reviewed now and then. Thirty out of every 100 European adults smoke everyday and one of every ten adults smokers dies from tobacco smoking; a higher ratio of 1:15 is found in Eastern Europe. The prevalence of smokers is decreasing among young adults in some European countries, while it is increasing among young women in Southern and Eastern Europe.


Smoking cessation and prevention interventions should be implemented, such as banning smoking in public areas, banning direct and indirect advertising of tobacco products, crop reduction, and rising cigarette prices. These interventions should be designed, coordinated, and developed by and among the different sectors involved in tobacco control initiatives, together with social network at the local, regional, and national levels, with the support of national and international organizations.\textsuperscript{24}

Kivimäki and others examined whether job demands or job control contributed to the socioeconomic gradient in cerebrovascular disease among 48,361 women aged 18–65 years. The excess risk of fatal and non-fatal cerebrovascular diseases in people from low socioeconomic positions is only partially explained by conventional cerebrovascular risk factors. This has led to the suggestion that poor psychosocial work environments provide important additional explanatory power. However, little evidence is available for women. Job demands, job control and behavioural risk factors were self-reported in 2000–2002; During a mean follow-up of 3.4 years, 124 women had a new cerebrovascular disease event. The risk was 2.3 (95% CI 1.3–3.9) times higher among women in low vs high socioeconomic positions. Adjustment for conventional risk factors, such as prevalent hypertension, coronary heart disease, diabetes, smoking, heavy alcohol consumption, physical inactivity and obesity, attenuated this excess risk by 23%. In

contrast, adjustment for job demands and job control actually amplified the gradient by 36% suggesting a suppression effect.\textsuperscript{25}

Joshi and others stress morbidity among elderly people has an important influence on their physical functioning and psychological well-being. Evaluation of the morbidity profile and its determinants, which have implications for elderly people, are not available. This study is to assess morbidity, co-morbidity, and patterns of treatment seeking, and to determine relationship of morbidity with disability, psychological distress, and socio-demographic variables among the elderly population in northern India. A cross-sectional survey of 200 subjects over 60 years old (100 each from the urban population of Chandigarh City and the rural population of Haryana State of India) was carried out using a cluster sampling technique. Elderly subjects with higher morbidity had increasing disability and distress. Age, gender, and occupation were important determinants of morbidity. Assessment of the morbidity profile and its determinants will help in the application of interventions, both medical and social, to improve the health status and thus the quality of life of the elderly in Northern India.\textsuperscript{26}

Kumar observes India is characterized by significant rural-based living, population heterogeneity, financial constraints, and reverse gender ratio. Traditions of joint families, life-long physical activity, vegetarianism, and social and spiritual


enrichment, all known to promote healthy ageing, are widely prevalent. With the increasing pace of population ageing, the health of older persons in India has been the focus of recent attention. Existing data indicate a significant morbidity among the aged, much of which may remain sub-clinical. Considerable variations in morbidity exist with respect to gender, place of residence (rural vs. urban), and socioeconomic status. Rapid demographic transition without a concomitant epidemiological transition is responsible for the dual load of infections and degenerative diseases in older persons, these being the common causes of death. Most age-related morbidity is preventable. Health promotion and cost-effective interventions based on the primary health care approach over a lifelong course, especially at the village level, will greatly help towards achieving the goal of healthy ageing. The rapidly changing socioeconomic scenario in India also calls for appropriate policy actions to achieve this goal.\textsuperscript{27}

Hung and others in their study, evaluated the association of consumption of fruits and vegetables with peripheral arterial disease. High fruit and vegetable consumption has been associated with a lower risk of cardiovascular diseases, but few studies have focused on peripheral arterial disease. In a cohort of 44,059 men initially free of cardiovascular disease and diabetes, documented 295 cases of peripheral arterial disease during a 12-year follow-up. Fruit and vegetable consumption was assessed by food frequency

questionnaire. It did not find evidence that fruit and vegetable consumption protects against peripheral arterial disease, although a modest benefit cannot be excluded.²⁸

Mannino and others examined the relation between second-hand smoke exposure and blood lead levels in a nationally representative sample of 5592 U.S. Children, aged 4-16 years, participated in the Third National Health and Nutrition Examination Survey (1988-1994). Lead is a component of tobacco and tobacco smoke, and smokers have higher blood lead levels than do nonsmokers. Second-hand smoke could be associated with increased blood lead levels in the children of U.S. aged 4-16 years.²⁹

Garshick and others had studied a sample of U.S. male veterans drawn from the general population of southeastern Massachusetts exposure to motor vehicle exhaust is associated with respiratory disease. Studies in children have observed associations with wheeze, hospital admissions for asthma, and decrements in pulmonary function. However, a relationship of adult respiratory disease with exposure to vehicular traffic has not been established. This association was not dependent on pre-existing doctor-diagnosed chronic respiratory or heart disease. Exposure to vehicular emissions by living


near busy roadways might contribute to symptoms of chronic respiratory disease in adults.\textsuperscript{30}

Neale and others provide new evidence to support a link between sun exposure and nuclear cataract. Risk was the highest among those with high sun exposure at younger ages. Cataracts are the leading cause of blindness and visual impairment throughout the world. An association of sun exposure with cortical cataract has been well established, but the association with nuclear cataract remains unclear. This case-control study was nested within the Nambour (Australia) Trial of Skin Cancer Prevention conducted between 1992 and 1996. They compared 195 cases who had a nuclear opacity of grade 2.0 or greater with 159 controls. Structured questionnaires were used to ascertain lifetime sun exposure history, eyeglasses and sunglasses use, and potentially confounding variables such as education and smoking. There was a strong positive association of occupational sun exposure between the ages of 20 and 29 years with nuclear cataract. Exposure later in life resulted in weaker associations. Wearing sunglasses, particularly during these early years, afforded some protective effect.\textsuperscript{31}

Almeida-Filho and Coletiva critically revises theoretical frameworks and models of social determination of chronic non-communicable diseases. Functionalist sociology generated socio-cultural models of health that influence the field of epidemiologic


investigation of the so-called "new morbidity" (basically chronic and degenerative illnesses), later contained under the generic label of stress theory. Neo-durkheimian approaches of social inequalities, based on the social capital concept, are analyzed and theoretical uses of the lifestyle notion in the health field are criticized. Models derived from the dialectical materialism, grounded on the concepts of labor and social class, are also discussed as they have turned quite influential in Latin-American social epidemiology. Finally, considering theoretical and conceptual gaps of such partial theories in what concerns the symbolic space of the social life, the conceptual basis of an alternative theoretical focuses the theory of mode of life and health. As a possible synthesis of the models object of this critical review, it is considered as especially suitable for the elaboration of epidemiologic models of social determination of non-transmissible chronic diseases.32

Borges and others aim at outlining epidemiology of mental diseases as a field of study, and to identify its limitations. Mental disorders, including substance abuse, are part of the Mexican epidemiologic scenario and will remain so for several decades. They may even become more prominent as causes of disease, disability, and death in our country. It is thus imperative to frame appropriate management strategies to curb these problems without delay. The epidemiology of mental disorders faces great challenges in the new millennium, including a complex, changing the epidemiologic scenario. Several important issues will influence the future development of mental disorder epidemiology: measurement of mental disorders and risk factors, more efficient sampling design and methods, the relationships among biological research, genetics, social studies, and

epidemiology, and the interface between epidemiology and the evaluation of therapies and health services.33

Atre and others explain the relationship between gender, culture, and TB in a rural endemic population of Maharashtra, India. For this study 80 men and 80 women employed qualitative and quantitative methods of cultural epidemiology, using a locally adapted semi-structured Explanatory Model Interview Catalogue (EMIC). Interviews are instruments for cultural epidemiological study of the distribution of illness-related experiences, meanings, and behaviours. Gender-specific patterns of experience, meaning, and behaviour for tuberculosis (TB) require consideration to guide control programmes.

This interview queried respondents without active disease about vignettes depicting a man and woman with typical features of TB. Emotional and social symptoms were frequently reported for both vignettes, but more often considered most distressing for the female vignette; specified problems included arranging marriages, social isolation, and inability to care for children and family. Job loss and reduced income were regarded most troubling for the male vignette. Men and women typically identified sexual experience as the cause of TB for opposite-sex vignettes. With wider access to information about TB, male respondents more frequently recommended allopathic

doctors and specialty services. Discussion considers the practical significance of gender-specific cultural concepts of TB.\textsuperscript{34}

Zero and others review to systematically assess clinical evidence in the literature to determine the predictive validity of currently available multivariate caries risk-assessment strategies (including environmental, socio-demographic, behavioral, microbiological, dietary/nutritional, and/or salivary risk factors) in: 1) primary teeth; 2) coronal surfaces of permanent teeth; and 3) root surfaces of permanent teeth. They identified 1,249 articles in the search, and selected 169 for full review. Inclusion and exclusion criteria were established prior to commencement of the literature search. The predictive validity of the models reviewed depended strongly on the caries prevalence and characteristics of the population for which they were designed. In many instances, the use of a single predictor gave equally good results as the use of a combination of predictors.\textsuperscript{35}

Frederick tries to find out the epidemiology of schizophrenia and other common mental health disorders in the English-speaking Caribbean. The age-corrected incidence rate for schizophrenia per 10,000 is 2.09 in Jamaica, 2.2 per 1000 in Trinidad, and 2.92 in Barbados. These rates are lower than the incidence rates reported for White British people, and significantly lower than the 6- to 18-fold higher risk ratio incidence reported for African Caribbeans living in Britain. A comparative diagnostic study carried out in the United Kingdom (UK) suggests that misdiagnosis plays a significant role in this

\textsuperscript{34} Atre, R. S., Kudale, M. A., Morankar, N. S., Rangan, G. S., & Weiss, G. M. 2004. Cultural Concepts Of Tuberculosis And Gender Among The General Population Without Tuberculosis In Rural Maharashtra, India. Tropical Medicine & International Health, 9: 11, 1228-1238.

difference. Relatively low incidence figures for affective disorders, anxiety states, suicide and attempted suicide have been reported for Jamaica, Trinidad, and Barbados.  

Marmot critiques that it is, still, an unusual idea that diseases have social causation and that the remedies for social causation might be social in nature. They need not, necessarily be so. If the remedies of the social causes of health should be social, what should we do? I am now up to my ears in a new Commission on Social Determinants of Health. We are trying to take a social approach to reducing inequalities in health between and within countries. The emphasis is on action.

Tabis interlink that the social class affects one’s life chances across a broad spectrum of social phenomenon from health care, to educational attainment, to participation in the political process, to contact with the criminal justice system. Health inequalities are an endemic characteristic of all modern industrial societies, but the size of the differential varies between countries and over time, indicating that there is nothing fixed or inevitable about having such a health divide. Inequalities in health are differences that are unnecessary and avoidable and judged to be unjust and unfair. Inequality in health is mainly a consequence of large economic and social inequalities in the society. However, sound health policies can reduce inequalities even in the face of income inequality. Observed social inequalities in health are amenable to purposeful policy interventions. A determined effort to mobilize the political will to create a fairer society that embraces all sections of the community is urgently needed.

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Joshi and others identify India is undergoing rapid epidemiological transition as a consequence of economic and social change. The pattern of mortality is a key indicator of the consequent health effects but up-to-date, precise, and reliable statistics are few, particularly in rural areas. Deaths occurring in 45 villages (population 180 162) were documented during a 12-month period in 2003–04 by multipurpose primary healthcare workers trained in the use of a verbal autopsy tool. A total of 1354 deaths were recorded with verbal autopsies completed for 98 per cent. A specific underlying cause of death was assigned for 82% of all verbal autopsies done. Diseases of the circulatory system were the leading causes of mortality (32 per cent), with similar proportions of deaths attributable to ischaemic heart disease and stroke. Second were injury and external causes of mortality (13 per cent) with one-third of these deaths attributable to deliberate self harm. Non-communicable and chronic diseases are the leading causes of death in this part of rural India. The observed pattern of death is unlikely to be unique to these villages and provides new insights into the rapid progression of epidemiological transition in rural India.39

Szeszenia and others explain current situation in the epidemiology of occupational diseases is a resultant of many contributing factors, such as occupational exposures of the working population, social and economic conditions, medical measures, legislation, and ongoing changes in the national economy. This work is based on the information compiled from reporting forms on occupational diseases gathered in the Central Register

of Occupational Diseases run by the Nofer Institute of Occupational Medicine, body, Poland. In 2005, the highest rates of incidence were noted for chronic voice disorders, pneumoconioses, infectious and parasitic diseases, hearing loss, and skin diseases.

The observed decrease in occupational pathology is associated with continued transformations in the national economy. Changes in the nature and level of occupational exposures have influenced the profile of occupational pathologies. Medical preventive measures, such as vaccinations covering high-risk groups have contributed to the reduced incidence of occupational diseases. Changes taking place on the labor market, new technologies and most of all transfer of the workforce from industry to the service and administration sectors, will certainly affect the profile of occupational and work-related pathologies. In the present-day environment, the work-related stress has become a dominant factor.  

Sanderson and Andrews review the recent descriptive and social epidemiology of common mental disorders in the workplace, including prevalence, participation, work disability, and impact of quality of work, as well as to discuss the implications for identifying targets for clinical and preventive interventions. Depression and simple phobia are found to be the most prevalent disorders in the working population. Seven longitudinal studies, with an average sample size of 6264, show a strong association between aspects of low job quality and incident of depression and anxiety. There was some evidence that at typical work is associated with poorer mental health, although the findings for fixed-term work are mixed. Mental health risk reduction in the workplace is

an important complement to clinical interventions for reducing the current and future burden of depression and anxiety in the workplace.\textsuperscript{41}

Colver and SPARCLE Group is a nine-centre European epidemiological research study examining the relationship of participation and quality of life to impairment and environment (physical, social and attitudinal) in 8–12 year old children with cerebral palsy. Concepts are adopted from the International Classification of Functioning, Disability and Health which bridges the medical and social models of disability. A cross sectional study of children with cerebral palsy sampled from total population databases in 9 European regions. Children were visited by research associates in each country who had been trained together. This study is original in its methods by directly engaging children themselves, ensuring those with learning or communication difficulty are not excluded, and by studying in quantitative terms the crucial outcomes of participation and quality of life. Specification and publication of this protocol prior to analysis, which is not common in epidemiology yet well established for randomised controlled trials and systematic reviews, should avoid the pitfalls of data dredging and post hoc analyses.\textsuperscript{42}

Völzke and others explore the relation between residential area and smoking behaviours in Germany. It is currently not clear whether individuals living in metropolitan areas differ from individuals living in rural and urban areas with respect to smoking behaviours. They used a nationwide German census representative for the general population of Germany. Analyses revealed inhabitants of metropolitan areas to be


more likely current smokers than inhabitants of rural areas. Among current and former smokers those who lived in urban communities had also increased odds for being heavy smokers than those who lived in rural communities. They conclude that living in an urban and particularly living in a metropolitan area is a determinant of both smoking and severity of current smoking. Tobacco control programs should recognize the difference in living conditions between rural and urban areas.43

Lauritzen and Hyden explore how new technologies not only provide hope for cure and well-being, but also introduce new ethical dilemmas and raise questions about the 'natural' body. Although the use of new health technologies in healthcare and medicine is generally seen as beneficial, there has been little analysis of the impact of such technologies on people's lives and understandings of health and illness. Focusing on the ways new health technologies intervene into our lives and affect our ideas about normalcy, the body and identity, Medical Technologies and the Life World explores:

- how new health technologies are understood by lay people and patients
- how the outcomes of these technologies are communicated in various clinical settings
- how these technologies can alter our notions of health and illness and create 'new illnesses'.44


Boon and others conducted a prevalence survey in 2002, among adults >15 years of age to determine the TB prevalence rate; 15 per cent of households in these communities were randomly sampled. The tuberculosis (TB) notification rate is high and increasing in 2 communities in Cape Town, South Africa.\(^{45}\)

Dickson and others explain the individual in-depth interviews with 14 people with chronic fatigue syndrome (CFS) were conducted, focusing on the experience of living with CFS. The interviews were transcribed verbatim and were analysed for recurrent themes using interpretative phenomenological analysis (IPA). Here we present two inter-related themes: "Negotiating a diagnosis" and "Negotiating CFS with loved ones". Participants reported delay, negotiation and debate over diagnosis: further, they perceived their GPs to be sceptical, disrespectful and to be lacking in knowledge and interpersonal skills. However, participants found delegitimising encounters with their partners more difficult to deal with. Participants viewed such delegitimation as a form of personal rejection; they were hurt by their loved ones' reactions and subsequently pondered the price of love, respect and friendship. The findings are discussed in relation to literature extensively, and recommendations for future research are suggested.\(^{46}\)

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Jaiswal and others investigate the epidemiology of various causations and their outcomes in terms of morbidity and mortality. Also, the effect of social stigma and cultural issues associated with burns on the victim and his family was assessed. Developing countries have a high incidence of burn injuries, creating a formidable public health problem. The exact number of cases is difficult to determine: however in a country like India, with a population of over 1 billion, we would estimate 700,000 to 800,000 burn admissions annually. This series provides an overview of the most important aspects of burn injuries for hospital and non-hospital healthcare workers. The majority of deep burns are accidental, seen in middle-aged housewives as a result of flame burns, and lead to death. So measures should be taken to provide proper education to prevent these accidents and ensure safety.\(^{47}\)

Nayar examined data on prevalence of anemia, treatment of diarrhea, infant mortality rate, utilization of maternal health care and childhood vaccinations among different caste groups in India. In the Indian context, caste may be considered broadly as a proxy for socio-economic status and poverty. In the identification of the poor, Scheduled Caste and Scheduled Tribes and in some cases the other Backward Castes also are considered as socially disadvantaged groups and such groups have a higher probability of even living under adverse conditions and poverty. The health status and utilization patterns of such groups give an indication of their social exclusion as well as an idea of the linkages between poverty and health.

The data based on the National Family Health Survey II (NFHS II) highlight considerable caste differentials in health. The linkages between caste and some health indicators show that poverty is a complex issue which needs to be addressed with a multi-dimensional paradigm. Minimizing the suffering from poverty and ill-health necessitates recognizing the complexity and adopting a perspective such as holistic epidemiology which can challenge pure technocentric approaches to achieve health status.\(^{48}\)

Ngoan and others examine cancer mortality pattern nationwide in Vietnam. Health information in general and cancer information in particular Vietnam is a basic data for decisions related to health planning and prevention against cancer. However, very limited database of cancer information has been available to date. Both demographic data and list of all deaths during the two years period, 2005-06, were obtained from all 10,769 commune health stations. Five indicators included name, age, gender, date of death and cause of death was collected for each case. A guideline to report demographic data of each commune and information of each case who has lived at least 6 months in their commune was prepared in the designed form and sent by express mail service to all the heads of 10,769 commune health stations throughout the country. It is suggested that the major causes for having lost thousands of lives are the society and the people themselves.\(^{49}\)


Rao and others understand the reasons why people in rural south India with visual impairment arising from various ocular diseases do not seek eye care. A total of 5,573 persons above the age of 15 were interviewed and examined in the South Indian state of Andhra Pradesh covering the districts of Adilabad, West Godavari and Mahaboobnagar. Barriers to seeking treatment among those who had not sought treatment despite noticing a decrease in vision over the past five years were personal in 52% of the respondents, economic in 37% and social in 21%. Routine planning for eye care services in rural areas of India must address the barriers to eye care perceived by communities to increase the utilization of services.\footnote{Rao, G., Thomas, R., Shamanna, B., Krishnaiah, S., & Kovai, V. 2007. Barriers To Accessing Eye Care Services Among Visually Impaired Populations In Rural Andhra Pradesh, South India. Indian Journal of Ophthalmology. 55: 5, 365-371.}

Lynam and Cowley illustrate the social processes that contribute to the creation of tensions between seeking to belong and being assigned to the margins and consider their attendant influences on health. Population-based studies have drawn attention to the associations between social and material disadvantage and poor mental and physical health over the life course, thereby contributing to inequalities in health. More recently, research in Britain has demonstrated that the effects of such disadvantage are cumulative through childhood and has shown that 'ethnic minorities' are at particular risk.\footnote{Lynam, M. J., & Cowley, S., 2007. Understanding Marginalization as a Social Determinant of Health. Critical Public Health. 17: 2, 137 – 149.}

Parry and others aim to know how residents of disadvantaged communities believe where they live influences their health. The authors describe focus group work they have undertaken with older and younger adult residents in three neighbourhoods in the West Midlands region of England, which participated in the New Deal for initiative
communities. Drawing on the narratives of residents, examples are given of specific 'pathways' they described linking place to health experiences. Finally, it was noted that 'fear' was a common node in many of the pathways that residents described linking aspects of place with their health.52

Bolas and others identify that the developing health care systems have placed an emphasis on unpaid, informal care giving from family members as a community health resource. It is estimated that there are between 19,000 and 51,000 young carers in the UK who are at increased risk of physical and psychological ill health. Therefore, the aim of this study was to explore the personal experiences of young carers in relation to their well-being using interpretative phenomenological analysis (IPA). Semi-structured interviews were carried out with five young carers and the verbatim transcripts served as the data for an IPA. Three themes emerged: (1) what caring means; (2) isolation and distancing from others; and (3) integrating caring. The participants struggled to make sense of caring, found it relentless, overwhelming and frustrating. They experienced stigma, which led to secrecy and withdrawal, cutting them off from their social worlds and the benefit of social support. They actively sought to integrate caring into their emerging sense of self and identity, and derived a sense of pride from caring and used this to combat feelings of uncertainty and isolation.53

Benyamini and others documented the contribution of both illness perceptions and social support to adjustment to illness. This study combines these two approaches by


examining: (1) Do patient and spouse perceptions of the patient's heart disease differ? (2) Are each partner's perceptions of the patient's disease associated with his/her perceptions of spouse support and undermining? (3) Are differences between patient and spouse perceptions of the patient's heart disease associated with spouse support and undermining? (4) Are there specific patterns of patient and spouse perceptions that are related to support/undermining? Fifty heart disease patients and their spouses reported overall similar illness perceptions. Spouses who held relatively negative illness perceptions reported providing more support and more undermining whereas patients with negative perceptions reported less received support. In addition, the data revealed several specific combinations of patient/spouse perceptions that were associated with support/undermining (e.g., lower support perceived by patients with a long disease timeline, whose spouses perceived a shorter timeline). In conclusion, patients' and spouses' illness perceptions are related to the support they receive and provide, respectively, and therefore should both be targeted in interventions.54

Cairney and others examine the association between markers of social position and psychiatric disorder among older adults, and test whether social support mediates the association between social position and psychiatric disorder in this population. A negative association between age and disorder was evident across all models, and the likelihood of reporting disorder was elevated among separated, divorced and widowed respondents relative to their married counterparts. Social support was statistically significant in all models, and mediated a considerable amount of the effect of marital

54 Benyamini, Y., Medalion, B., & Garfinkel, D. 2007. Patient And Spouse Perceptions Of The Patient's Heart Disease And Their Associations With Received And Provided Social Support And Undermining. Psychology & Health. 22: 7, 765 – 785.
status on disorder. Many of the markers of social position associated with disorder among younger adults continue to be important predictors among older adults, and these variables are mediated to varying degrees by social support. The results support the general notion that social circumstances are important to psychological well-being.\textsuperscript{55}

Mattoo and others study the psychosocial profile of patients of acromegaly in a developing country setting. Seventeen patients with acromegaly underwent a cross-sectional assessment regarding their socio-demographic and clinical profile, life events, social support, coping, dysfunction, quality of life and psychiatric morbidity. Seventeen demographically matched healthy participants (free from psychological morbidity) acted as the control group. Psychiatric morbidity occurs in a significant percentage of patients with acromegaly. The presence of psychiatric morbidity is associated with dysfunction and poorer quality of life.\textsuperscript{56}

Nirmala and others present a broad historical overview of the studies on the genetic etiology of human obesity, including the recent studies involving candidate gene and whole genome scan approaches using case-control and family samples. Obesity is a complex, heterogeneous group of disorders that is determined by genes, environmental factors and interaction between genes and environment. Body Mass Index (BMI) is a proxy measure for obesity and is the most commonly studied marker for it. Obesity is becoming an increasingly important clinical and public health challenge throughout the world.


It is associated not only with an increased burden of non-insulin diabetes, hypertension, cardiovascular diseases, some types of cancers and premature mortality but also with the social and psychological effects of excess weight. Because of its larger population size, the developing world has faced with larger burden of overweight and obesity. Several studies have shown that changes in dietary patterns, physical activity levels and life styles associated with diet and urbanization are related to increasing incidence of obesity in India. The uniqueness of Indian population structure and its relevance to understanding and/or for disentangling the genetic etiology of complex genetic disorders in general and particularly of human obesity has been emphasized.\textsuperscript{57}

Chen and others explore the relationship of occupational stress and social support with health-related behaviors of smoking, alcohol usage and physical inactivity. A cross-sectional survey was conducted among 561 offshore oil installation workers of a Chinese state-owned oil company. They were investigated with a self-administered questionnaire about socio-demographic characteristics, occupational stress, social support and health-related behaviors. The findings suggest that psychosocial factors of occupational stress and social support at offshore oil work might affect workers' health-related behaviors in different ways.\textsuperscript{58}

Woodcock and Aldred drew attention to health inequalities as avoidable and inequitable, encouraging thinking beyond proximal risk factors to the most important


causes. However, key debates remain unresolved including the contribution of material and psychosocial pathways to health inequalities.\textsuperscript{59}

Behmann and others improve palliative care is a public health priority. However, little is known about the views of public health experts regarding the state of palliative care in Germany and the challenges facing it. The main aim of this pilot study was to gather information on the views of internationally experienced public health experts with regard to selected palliative care issues, with the focus on Germany, and to compare their views with those of specialist palliative care experts. Older people and non-cancer patients were identified as target groups with a particular priority for palliative care. By contrast to the public health experts, the palliative care experts emphasized the need for rehabilitative measures for palliative patients and the possibilities of providing these. Significant barriers to the further establishment of palliative care were seen, amongst other things, in the powerful lobby groups and the federalism of the German health system.\textsuperscript{60}

Trasande and others review the approach taken by the National Children’s Study (NCS), a 21-year prospective study of 100,000 American children, to understanding the role of environmental factors in the development of obesity. Although it is clear that obesity in an individual result from an imbalance between energy intake and expenditure, control of the obesity epidemic will require understanding of factors in the modern built


environment and chemical exposures that may have the capacity to disrupt the link between energy intake and expenditure.⁶¹

Uneke, C. and Ibeh, L., seek to clarify the mechanisms linking deforestation, economic development and malaria epidemiology and the ecological implications. Forest resources in Nigeria are undergoing severe exploitation pressure due to demographic growth and socio-economic development. Through the process of forest clearing, deforestation alters the ecology of local malaria vectors. The income status of individuals residing in the areas of active deforestation was lower than those of the areas of non-active deforestation. Higher yearly episodes of malaria and the tendency to spend less amount of money for malaria treatment characterized the areas of active deforestation and the inhabitants had higher preference for use of wood fuel and use of forest medicinal herbs for malaria treatment. In the areas of active deforestation, the mosquito night biting/landing rates were considerably higher than those of the areas of non-active deforestation. Conservation policies aimed at slowing deforestation will impact malaria and would reduce the increasing incidence of deforestation-dependent malaria epidemics.⁶²

Mathers and others assess the causes of death across all regions of the world require a framework for integrating, and analysing, the fragmentary information that is available on the number of deaths and their cause distributions. Deaths for 136 diseases

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and injury causes were estimated from available death registration data (111 countries), sample death registration data (India and China), and for the remaining countries from census and survey information, and cause-of-death models.

Population-based epidemiological studies and notifications systems also contributed to estimating mortality for 21 of these causes (representing 28 per cent; of deaths globally, 58 per cent; in Africa). Ischaemic heart disease and cerebrovascular diseases are the leading causes of death, followed by lower respiratory infections, chronic obstructive pulmonary disease and diarrhoeal diseases. AIDS and TB are the sixth and seventh most common causes of death, respectively, lower than in the previous estimates. One-half of all child deaths are from four preventable and treatable communicable diseases. Globally, around 6 in 10 deaths are from non-communicable diseases, 3 from communicable diseases and 1 from injuries. Injury mortality is the highest in South-East Asia, Latin America and the Eastern Mediterranean region.

These results illustrate continuing huge disparities in risks and causes of death across the world. Global mortality analyses of the type reported here have been criticized for making estimates of mortality for regions with limited, incomplete and uncertain data. Estimates presented here use a range of techniques depending on the type and quality of evidence. Better evidence on levels of adult mortality is needed for African countries. Considerable gaps and deficiencies remain in the information available on the causes of death. Nine of 10 deaths in 2004 occurred in low- and middle-income countries, reinforcing the fundamental importance of improving mortality statistics as a measure of health status in the developing world. Acknowledging the controversies around the use of
incomplete and uncertain data, systematic assessments and synthesis of the available evidence will continue to provide important inputs for global health planning. Innovative methods involving sample registration, and the use of verbal autopsy questionnaires in surveys, are needed to address these gaps. Research on strategies to improve comparability of cause-of-death certification and coding practices across countries is also a high priority.⁶³

Mossey describe clefts of the lip and palate are generally divided into two groups, isolated cleft palate and cleft lip with or without cleft palate, representing a heterogeneous group of disorders affecting the lips and oral cavity. These defects arise in about 1.7 per 1000 live born babies, with ethnic and geographic variation. Effects on speech, hearing, appearance, and psychology can lead to long-lasting adverse outcome for health and social integration. Typically, children with these disorders need multidisciplinary care from birth to adulthood and have higher morbidity and mortality throughout life than the unaffected individuals do. Although access to care has increased in the recent years, especially in developing countries, quality of care still varies substantially. Prevention is the ultimate objective for clefts of the lip and palate, and a prerequisite of this aim is to elucidate causes of the disorders. Technological advances and international collaborations have yielded some successes.⁶⁴

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Ghosal, explains achievement of medical and public health goals requires mutual understanding between professionals and the public, a challenge in diverse societies. Despite their massive diversity humans belong to one species, with race and ethnicity used to subgroup/classifies humans and manages the diversity. Classifications are contextual and vary by time, place and classifier. As classifications show major variations in health status, and risk factors, research using race and ethnicity has accelerated. Medical sciences, including epidemiology, are learning fast to extract value from such data. Among the debatable issues is the value of the relative risk versus absolute risk approaches (the latter is gaining ground), and how to assess ethnicity and race (self-assignment is favoured in the UK and North America, country of birth in continental Europe). Racial and ethnic variations in disease and risk factors are often large and usually unexplained. There is a compelling case for ethnic monitoring, despite its difficulties, for tackling inequalities and as a foundation for research. Medical and public health goals require good data collected in a racism-free social environment. Health professionals need to find the benefits of exploring differences while avoiding social division.65

Clougherty and Kubzansky, attempts to synthesize the relevant research from social and environmental epidemiology, toxicology, immunology, and exposure assessment to provide a useful framework for environmental health researchers aiming to investigate the health effects of environmental pollution in combination with social or psychological factors. There is growing interest in disentangling the health effects of

spatially clustered social and physical environmental exposures and in exploring potential synergies among them, with particular attention directed to the combined effects of psychosocial stress and air pollution. Both exposures may be elevated in lower-income urban communities, and it has been hypothesized that stress, which can influence immune function and susceptibility, may potentiate the effects of air pollution in respiratory disease onset and exacerbation. They identify some of the major methodological challenges ahead as they work toward disentangling the health effects of clustered social and physical exposures and accurately describe the interplay among these exposures.\(^{66}\)

Raude and Setbon examine the role of environmental and individual factors in the social epidemiology of chikungunya disease in the island of Mayotte (South-western Indian Ocean). They aim to (1) estimate the frequency and social distribution of chikungunya disease and (2) identify its principal cognitive, behavioral, and environmental determinants within a stratified random sample of the Mayotte population (n=888). Semi-parametric tests and multiple correspondence analyses were used to describe the statistical relationships between the different classes of variables examined in this study and the presence of antibodies attributable to chikungunya. These analyses highlighted differences between two main types of populations: one more autochthonous, more urban and better educated population, which shared ‘legitimate’ representations of the disease—from a biomedical viewpoint; and the other more migrant, more suburban, and more deprived, which is characterized by folk theories of chikungunya virus infection. Moreover, a series of logistic regression models revealed that social disparities

in the distribution of virus infection were primarily structured by the housing conditions and cognitive representations of the disease held by the participants.\textsuperscript{67}

Basta and others indicate the vaccinating school-aged children against influenza can reduce age-specific and population-level illness attack rates. At the most, nearly 100 million cases of influenza illness could be prevented, depending on the proportion of children vaccinated and the transmission intensity. Given the current worldwide threat of novel influenza A with an estimated, health officials should consider strategies for vaccinating children against novel influenza A as well as seasonal influenza, Communicable disease control; influenza, influenza vaccines; and mass immunization.\textsuperscript{68}

Graciela and Delgado explain despite a long-standing recognition that factors such as age, gender, and socioeconomic status play a fundamental role in tuberculosis transmission and susceptibility; few molecular epidemiological studies have fully elucidated the etiological mechanisms by which each of these social factors may influence transmission of the disease.\textsuperscript{69}

Sandhu and others conducted a study on cancer patients in order to know the epidemiology and management strategies for breast cancer patients in the patient

\begin{footnotesize}
\begin{enumerate}
\item Raude, J., & Setbon, M. 2009. The Role of Environmental and Individual Factors in the Social Epidemiology of Chikungunya Disease on Mayotte Island. \textit{Health & Place.} 15: 3, 659-669.
\end{enumerate}
\end{footnotesize}
population. The epidemiological data pertaining to demography and risk factors for carcinoma breast were analyzed retrospectively in patients admitted to a tertiary care hospital in North India. The hospital records of 304 patients admitted for over a period of five years (January 1998 to December 2002) were used for data analysis. The Mean age of Indian female breast cancer patients was found to be lower compared to that of the western world, with an average difference of one decade. A majority of the patients were from a rural background and had a longer duration of symptoms compared to that of the urban patients. Lump in the breast was a dominant symptom. Familial breast cancer was uncommon. Left sided breast cancer was slightly preponderant.70

Maher pinpoint that there is increasing consensus on the importance of strengthening global health research to meet health and development goals. Three key global health research aim to ensure that research (i) addresses priority health needs, (ii) contributes to policy development, and (iii) adds value to investments in developing countries through South-South collaboration and capacity-strengthening in the South.71

The above studies clearly show that though there are many studies concerning aspects of diseases such as incidence, various causes for the diseases, treatment methods and other aspects. It is however noted that no serious attempt has been made to study the social practices associated with diseases. Hence there is a need for the present study. For the purpose of the study appropriate objectives has been formulated by the investigator focusing on the study area.
