Gangopadhyay J, Subramanyam M. Theory and health disparities: Explaining the relevance of theory in public health research in India. *Indian J Med Ethics*

**Supplementary Table: Content analysis of articles that met the inclusion criteria**

| SOCIAL CLASS | | | | | | | | |
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| **Reference Number** | **Article Title** | **Health Outcome** | **Research Question** | **Pathways** | **Explanation** | **Recommendations** | **Theoretical perspective** | **Justifying the theory** |
| 21 | Social class-related gradient in the association of skeletal growth with blood pressure among adolescent boys in India (2008) | Skeletal Growth with blood pressure | This study examined blood pressure levels, adiposity and growth of adolescent boys from high and low social classes. | "Social class-related differences in prevalence of high blood pressure among adolescents have rarely been reported. In our study, the prevalence of high systolic blood pressure (HSBP) was associated with adiposity (Body Mass Index and body fat) while the prevalence of high diastolic blood pressure | No Statement | No Statement | Social Production of Disease and Biomedical Theory | Depending on the social class the adolescents experienced different blood pressure levels. Hence the biomedical theory was the most suited. Further "while high diastolic blood pressure appeared as the health consequence of growth retardation in lower socio-economic (LSE) class" suggests that |

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| | | | | (HDBP) was associated with stunting. Therefore, our findings suggest that high systolic blood pressure was the health consequence of adiposity in high socio-economic (HSE) class, while high diastolic blood pressure appeared as the health consequence of growth retardation in lower socio-economic (LSE) class." | | | | social production of disease could also be a fitting theory. |
| 22 | Association of dietary factors and other coronary risk factors with social class in women in five Indian cities | Coronary Risk Factors | In this report, the authors study dietary and lifestyle patterns in relation to social class among female participants. | "Mean BMI, obesity, overweight, central obesity and sedentary lifestyle were also significantly more common among subjects with higher | "The consumption of pro-atherogenic foods; total visible fat, milk and milk products, meat, eggs and also sugar and | No Statement | Lifestyle Theory | The high lifestyle of the higher social classes allowed them to consume more fatty products such as meat and eggs, which affected |

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| | (2000) | | | social classes compared to the lower social classes." | confectionery were significantly increased in higher social classes. Subjects in social classes 4 and 5 were poor, unskilled workers whose earnings were irregular which did not allow them to consume adequate food. However, in social classes 1–3, the subjects were professionals, wives of businessmen, shopkeepers and skilled workers who are usually household workers. These classes of women were consuming a higher amount | | | their lifestyle and lead to more obesity and hence lifestyle theory could be appropriated here. |

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| | | | | | of pro-atherogenic food and had helpers for household work, resulting in a higher prevalence of sedentary lifestyle among them." | | | |
| 23 | Social class, coronary risk factors and undernutrition, a double burden of diseases, in women during transition, in five Indian cities (1999) | Coronary Risk Factors and Undernutrition | To examine the association between social class and coronary risk factors among women. | "This study shows that coronary risk factors, obesity, central obesity, a sedentary lifestyle, oral hypertension, diabetes mellitus, total cholesterol and a contraceptive intake and postmenopausal status was family history of coronary artery disease (CAD) were significantly associated with higher social classes in an | "As the transition from annual poverty to affluence progresses, communicable diseases and under nutrition tend to decline in importance relative to problems resulting from non-communicable diseases." | No Statement | Lifestyle Theory | This statement "As the transition from annual poverty to affluence progresses, communicable diseases and under nutrition tend to decline in importance relative to problems resulting from non-communicable diseases," suggests that as the status improves from poverty to affluence there is a decline in |

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| | | | | urban population women from various geographical areas of India." | | | | under nutrition because life style improves. Hence Lifestyle Theory could be a potential approach for this article. |
| 24 | Social class and coronary artery disease in an urban population of North India in the Indian lifestyle and heart study (1997) | Coronary Artery Disease | To determine the association of social class and coronary risk factors and coronary artery disease (CAD) | "The Indian Lifestyle and Heart study shows that the strength of the association of level of social class coronary artery disease (CAD) and coronary risk factors were significantly with the prevalence of coronary artery disease (CAD) in both males (odds ratio associated with level of socioeconomic status in this 0.98, 95% confidence interval 0.83 to | "The Indian urban population is under rapid transition reported that the prevalence of coronary artery disease (CAD) was lowest in from poverty to affluence in conjunction with rapid laborers and highest in professionals and skilled changes in diet and lifestyle." | "Lower coronary risk socioeconomic group on incidence of management of and survival observed among lower social classes appear to be due to physically demanding occupations and low fat." | Lifestyle Theory | Due to their physically demanding occupations the lower classes lead a particular lifestyle and their consumption of fat is much less as compared to higher social classes. Hence, Lifestyle theory could be recommended for this particular paper. |

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| | | | | 1.09) and cohort of urban subjects from north India. Higher and females (odds ratio 0.82, 95% confidence interval middle social classes 1–3 were associated with higher 0.68 to 0.97). prevalence of coronary artery disease (CAD) including myocardial infarction and angina pectoris diagnosed by new criteria of under the leadership of Heller showed that coronary Cardiovascular Health Study." | | | | |
| 25 | Social class and coronary disease in a rural population of north India | Coronary Disease | To demonstrate the association of socioeconomic status and coronary artery disease and | "The Indian Social Class and Heart Survey showed that coronary artery disease and | "Level of education, income, occupation, employment status, indices | No Statement | Lifestyle Theory | Higher income results in more consumption of fatty diet and hence higher coronary |

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| | (1997) | | coronary risk factors. | coronary risk factors were significantly associated with social class in a rural population of North India. Social classes 1 and 2 were associated with a higher prevalence of coronary artery disease. This association remained significant on age adjusted analysis, but declined after the addition of other lifestyle characteristics in a multivariate analysis." | of social class, measures of living conditions, area-based measures, life span measures and measures of income inequality are widely considered measures of social class. Some experts suggest that other than income or educational status, prestige of a particular job may be important. Survotham and Berry reported that coronary artery disease was more prevalent among high income groups without giving any explanation. | | | diseases occur. Also, people engaged in more physically demanding work, faced less coronary diseases and hence Lifestyle Theory could be appropriated in this context. |

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| | | | | | Other workers emphasized that people engaged in physically demanding work such as farming were less likely to develop coronary disease than people with sedentary occupations. In a recent study, Gupta found that although illiterate and less educated people were more physically active, they had a higher prevalence of coronary disease. It is possible that illiterate and less educated people in this study included | | | |

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| | | | | | mainly rich farmers who are known to consume a relatively higher fat diet. Smoking was also more common among them." | | | |
| 26 | Socioeconomic gradients of cardiovascular risk factors in China and India: results from the China health and retirement longitudinal study and longitudinal aging study in India (2017) | Cardiovascular risk | The goal of this study is to compare socioeconomic status (SES) gradients of cardiovascular risk factors (CVRF) between China and India. | No statement | No statement | "A cross-country comparison of socioeconomic inequalities in illness may provide some insight into possible causal explanations and potential interventions. For example, by comparing data from the U.S. Health and Retirement Study and the English Longitudinal Study of Aging (ELSA), Banks et al. showed | Social Production of Disease | This paper is taking into account the socioeconomic inequalities of illness. Hence, the social production of disease as a theoretical model seems to be a fit for this paper. |

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| | | | | | | that even though US residents are much less healthy than their English counterparts and the health differences exist at all points of the SES distribution, the differences between US and English populations cannot be fully explained by universal lifetime health care access in England (Banks et al. 2006). A similar analysis between China and India in the future would be integral in further elucidating the role of SES and access to care in health outcomes." | | |

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| 27 | Prevalence of undernutrition and associated factors: A cross-sectional study among rural adolescents in West Bengal, India. (2017) | Undernutrition | This study investigates the intersection of socio-demographic factors and malnutrition among 10 to 17 years old adolescents | “The adolescents belonged to lower social class were significantly more likely to be stunted” | “Social class difference too had also found in child undernutrition. The risk of being undernourished was significantly higher among lower social class (Scheduled Tribe and Scheduled Caste) adolescent compared to the upper or middle social class. This may be because availability and accessibility of heath care services in rural areas are not in par with urban areas.” | “In addition to the existing universal education program, there is a need to provide mass education regarding health and child nutrition in the rural regions, particularly among the socioeconomic groups that are educationally lagging. In this endeavor, cooperation is necessary among the government, non-governmental organizations, medical personnel and the local people. The results of the present study will be useful for policy makers and | Social Production of Disease | Lack of access to healthcare and malnourishment among different class groups are the main reason for undernourishment. Hence, Social Production of Disease seems relevant here. |

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| | | | | | | programmers to formulate various developmental and health care programs. Nutritional intervention is also necessary to improve the nutritional status among the adolescents.” | | |
| 28 | Factors associated with body mass index among slum dwelling women in India: an analysis of the 2005-2006 Indian National Family Health Survey (2017) | Body Mass Index | This study seeks to determine the factors associated with Indian women’s body mass index (BMI in slum environments, with special focus on women with tribal status. | No statements | No statements | “Expected factors, such as age, diabetes, and a sedentary lifestyle, are associated with increasing Body Mass Index among slum dwelling Indian women, the important insight arising from our study is that nutritional health challenges to Indian slums may not be | Social Production of Disease | Since slum dwelling and home environment have been considered to be as important factors for the Body Mass Index of the tribal women, social production of disease seems to be the most relevant model here. |

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| | | | | | | dissimilar to challenges experienced by other urban residents, though the experiences of tribal peoples are deserving of more focused attention in future research projects." | | |
| 29 | The burden of infectious and cardiovascular diseases in India from 2004 to 2014 (2017) | Infectious and cardiovascular diseases | To assess the intersections between socioeconomic and demographic subpopulations. infectious diseases and cardiovascular diseases (CVD) from 2004 to 2014. | "A decrease in the beta coefficients for many categories for both infectious diseases and cardiovascular diseases (CVD) from 2004 to 2014 was noted. For example, the chance of having (CVD) among the Other Backward Classes was 0.40 ($p<0.01$) in 2004, which declined to 0.10 | "This study also brings to the forefront the fact that the burden of Non-Communicable Diseases has spread to the underprivileged classes of society previously thought to be safe. Poor households, households paying no medical insurance premiums, illiterate | "Policies impacting unplanned urbanization, the marketing of unhealthy food, and healthy-living initiatives need to be monitored to create a conducive environment for improved public health. An urgent need-assessment of the health resources and infrastructure available for the | Social Production of Disease | This paper has identified that poor households have very little access to medical insurance and health infrastructure. Hence social production of disease seemed to be an appropriate model for this study. |

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| | | | | ($p<0.01$) in 2014." | individuals, and Scheduled Castes/Tribes, which previously had a lower risk of cardiovascular diseases (CVD) and a higher chance of having infectious diseases, are now burdened with both. This study provides evidence of the ongoing compression of cardiovascular diseases (CVD) in the older ages of the population, and thereby confirms the theory of diffusion, according to which increased chances of suffering from cardiovascular | elderly to serve the older population suffering from cardiovascular diseases CVD is required. Integrating Non-Communicable Diseases programs within existing health services and systems would probably be most effective. This study documented an increase in the burden of cardiovascular diseases (CVD) among disadvantaged population groups, hinting at the importance of immediate control measures informed by analyzing the | | |

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| | | | | | diseases (CVD) trickle down the social gradient." | specific causes of this phenomenon and by transforming health insurance dynamics with a focus on the poorer sections of the population." | | |
| 30 | Relationship between body mass index and dental caries in children, and the influence of socio-economic status. (2017) | Dental Caries | To understand the association of body mass index (BMI) and socio-economic status with dental caries in Indian schoolchildren. | "There were differences in the association of Body Mass Index with dental caries across the categories of family Socio-Economic Status . Among children from families with high Socio-Economic Status, overweight children had approximately 71% fewer caries than did normal- | "Although the underlying reason for this inverse association is unclear, several studies have attributed it to dietary habits. One of these studies suggested that although parents of overweight children may restrict the consumption of sugary food, thus leading to development of fewer caries, the children | "Dentists from the study region, in their position as health-care providers, can educate and motivate parents, particularly those children who are overweight, on healthy eating practices. Furthermore, health-education programmes for preventing dental caries and obesity, with multisectoral co-ordination | Lifestyle Theory | Dietary habits emerged to be the biggest reason for dental caries. Hence Lifestyle theory seemed to be an appropriate fit for this study. |

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| | | | | weight children, both before (IRR = 0.29; 95% CI: 0.11–0.78) and after (IRR = 0.27; 95% CI: 0.10–0.73) adjusting for the effect of all other explanatory variables." | remain overweight because they consume more calories than they expend. Another study reasoned that overweight children might consume more fatty acids, but less sugar, compared with healthy or underweight children." | between health and education departments of the state, should be contemplated." | | |
| 31 | Socioeconomic disparities in coverage of full immunisation among children of adolescent mothers in India, 1990-2006: a repeated cross-sectional analysis. (2016) | Immunity | This paper assesses the socioeconomic disparities in immunisation coverage among children of adolescent mothers in India. | "Findings showed that the difference in the probabilities of children availing full immunisation belonging to the most disadvantaged and advantaged mix of socioeconomic characteristics (based on their place of | "The most deprived children in terms of receiving full immunisation appeared to reside in rural areas, belonged to poor families, and their mothers were illiterate. Interacting the impact of children | "The study strongly advocates for the promotion of a comprehensive scheme focusing on adolescent mothers and their children to improve levels of full immunisation while minimising the social disparities | Social Production of Disease | Socioeconomic characteristics play a key role in determining immunity. Hence, the social production of disease seemed to be the most relevant model for this study. |

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| | | | | residence, education and economic status) was almost twofold to threefold and such disparities were consistent over the survey period.” | belonging to socially deprived groups (ie, Scheduled Caste /Scheduled Tribe) in association with their place of residence and economic status did not present much variation in probability, compared with the situation when the extreme ends of their mother's education was introduced in the socioeconomic spectrum. This experiment established the fact that economically poor children of illiterate adolescent | in the overall coverage. The geographical concentration of adolescent women out of all women of reproductive age, and those belonging to deprived groups, presented in this study would help policymakers to prioritise the intervention in health programmes including immunisation.” | | |

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| | | | | | mothers from rural areas, irrespective of the social groups they belonged to, were the most deprived groups of children in terms of availing full vaccination." | | | |
| 32 | Overweight and Obesity in School Children of a Hill State in North India: Is the Dichotomy Urban-Rural or Socio-Economic? Results from a Cross-Sectional Survey. (2016) | Overweight and obesity | To understand the prevalence of overweight and obesity in the school-going children (6–17 years age) . | "The present study found an overall prevalence of overweight as 15.6% of which 5.4% were obese. This prevalence of overweight is comparable to that of the range indicated by a review in India in 2007 (overweight: 8.5%–29% and obesity 1.5–7.4%)." | "Mid-day meal is a wholesome lunch provided by the state to all government school children till class 8. Due to expensive fruits, fruit intake in our study is simply a marker of affordability and shows positive association with overweight and obesity. The deficit in Recommended | "School curriculum that includes education about diet as modifiable risk factor can address both ends of spectrum of malnutrition." | Lifestyle Theory and Social Productio n of Disease | For the urban children their lifestyle plays a key role in determining their weight. On the other hand, for the rural children access to food plays a key role in determining their weight. Hence both Lifestyle theory and Social Production of Disease seems to be a fit here. |

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| | | | | | Dietary Allowances **(**RDA) is comparable in urban and rural areas, but the difference in deficit between private and government schools is very significant (30.7% in urban government and 26.3% in rural government)." | | | |
| 33 | Disparities in Prevalence of Cardiometabolic Risk Factors in Rural, Urban-Poor, and Urban-Middle Class Women in India. (2016) | Cardiovascular disease | To examine the association between location and Cardiovascular disease risk factors among women belonging to different class categories and locations. | "The present study shows high prevalence of multiple cardiovascular risk factors, including diabetes, in urban middle-aged women in India. The prevalence of obesity, abdominal obesity, hypertension, | "Urbanization is one of the most dramatic demographic changes occurring in developing countries such as India. Greater prevalence of diabetes and other Cardiovascular disease (CVD) risk factors | "Control of unhealthy consequences of this transition shall require innovative strategies that promote healthy urbanization with focus on macrolevel as well as microlevel environments that promote physical activity | Lifestyle Theory and Social Production of Disease | In this study also the lifestyle of the urban women plays an important aspect in determining cardiovascular diseases as opposed to the rural women who have little access to resources. Hence both |

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| | | | | hypercholesterolemia and impaired fasting glucose is significantly greater in urban middle-class and urban-poor women compared to the rural. There is a significantly increasing trend in all these metabolic factors with increasing urbanization." | with increasing urbanization is due to multiple factors. Changes in diet have been attributed to economic growth leading to changes in food consumption, relative cost, availability and media and industry influences. Changes in physical activity have been attributed to mechanization at work and home. Change in transportation (e.g. increased motorised vehicle ownership), and changes in the built environment | and improve availability and intake of healthy foods." | | these models seem to be relevant in this study. |

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| | | | | | (e.g. increased urban sprawl and poor connectivity in residential areas) also lead to lower physical activity." | | | |
| 34 | Do socio-economic inequalities in infant growth in rural India operate through maternal size and birth weight? (2016) | Infant size | To examine the role of Socioeconomic inequalities in under-nutrition and infant size. | "Findings show that socio-economic status has significant direct and indirect associations with Weight for Age Z scors and Length for Age Z scores, with direct associations accounting for 47% of the total effect for Length for Age Z scores and 40% for Weight for Age Z scores at 12 months. Significant indirect pathways | No statement | "Evidence from this study suggests that targeting evidence-based nutrition and growth interventions (Bhutta et al., 2013 provides a review of evidence-based nutrition specific interventions and Ruel et al., 2013 a review of evidence-based nutrition sensitive interventions (Bhutta and others 2013; Ruel, Alderman, | Social Production of Disease | Socioeconomic status plays a key role. Hence social production of disease seems to be a fit in this study |

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| | | | | explain the majority of the total socio-economic effect on infant anthropometric outcomes at 12 months and have been identified to be maternal height and Weight for Age Z scores at 6 months (Weight for Age Z scores only)." | | Maternal and Child Nutrition Study Group. 2013) towards infants from the most vulnerable poor families with the shortest mothers would have the greatest potential for breaking the cycle between poverty and malnutrition in infancy in rural South India." | | |
| 35 | Growth and obesity status of children from the middle socioeconomic group in Lucknow, northern India: A comparison with studies on children from the upper | Growth and obesity status | To examine the trend in height and prevalence of obesity among children from the middle socioeconomic group | "Our results show that urban children belonging to the Middle Socioeconomic Group (MSEG) in Lucknow have become taller at final height (except for 3rd centile girls) than the Upper | "An explanation could be that the negative bias towards the girl child in our region has not allowed girls to achieve improvement in height to the extent to which the boys have. There is | "These results have implications for contextualizing the obesity epidemic seen among children within its socioeconomic context and pointing to a gender bias for improvement in heights." | Lifestyle Theory | Obesity in the Upper Socioeconomic group is because of dietary habits and hence, Lifestyle theory seems relevant for this study. |

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| | socioeconomic group. (2015) | | | socioeconomic group (USEG) cohort of 1992 from the same region (Lucknow, Allahabad, Varanasi). They compare favourably with their 2009 Upper socioeconomic group (USEG) nationally." representative counterparts with respect to boys. However, with respect to girls, the Middle Socioeconomic Group (MSEG) still lags behind the national Upper Socioeconomic Group (USEG) data for 1992 and 2009 for the older age groups. The gender difference is unlikely to be | an improvement of height percentiles in the pre-pubertal years, which is not carried through during the pubertal growth spurt, suggesting that perhaps a few more years of improved nutrition for the girl child may also bring her at par with the national Upper socioeconomic group (USEG) data." | | | |

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| | | | | due to genetically shorter population in our region, otherwise it would have affected boys and girls equally." | | | | |
| 36 | Education, gender, and state-level disparities in the health of older Indians: Evidence from biomarker data. (2015) | Anemia and Cardiovascular health; | To analyze empirical data on health disparities in anemia and cardiovascular risk among older Indians | "We find evidence for an education gradient in Hb, but there is no evidence of state-level differences. Despite recent economic growth, the risk of anemia, most likely associated with malnutrition is higher for women and for those without schooling. This is consistent with previous evidence on younger Indians | No statements | "There are several policy relevant implications to these results (subject to the limitations we discuss below). First, our analysis shows that cardiovascular disease is likely to be an important detrimental factor for population health encompassing all socioeconomic groups in Indian | Social Production of Disease | Factors such as education, gender are socio-economic factors and hence Social Production of Disease seems to be a fit here. |

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| | | | | (Subramanian et al., 2009). We find that about one third of Indians have a C-reactive protein (CRP) level considered to be high risk (>3 mg/L), which is comparable to results from the English Longitudinal Study on Ageing (Hamer and Molloy, 2009). We also find that C-reactive protein (CRP) is greater among the oldest old and among urban residents. Although there are substantial state-level differences, there is no evidence of an education gradient for C-reactive protein (CRP), which is consistent with | | society, and therefore interventions to improve cardiovascular health should not only be targeted at the better-off individuals living in urban areas. Second, gender and education disparities in hemoglobin (and therefore likely also in nutrition) persist among older Indians, also implying that nutrition programs should also be targeting this age group rather than just women of reproductive age and children, especially considering that the health of older | | |

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| | | | | existing evidence from Costa Rica (Rosero-Bixby and Dow, 2009)." | | individuals may be especially sensitive to these conditions (Carmel, 2001; Chaves et al., 2005). Third, when we decompose state-level differences, we find that these disparities are mainly due to differences in the association of risk factors with C-reactive protein (CRP) rather than in the distribution of risk factors." | | |
| **SOCIO-ECONOMIC STATUS** | | | | | | | | |
| 37 | Impact of socioeconomic status and living condition on latent tuberculosis diagnosis | Latent tuberculosis infection | To study socio-economic status (SES) and living conditions (LC) as risk factors for latent tuberculosis | "Low Socio-Economic status has direct impact on living conditions of the tribal population. Both factors ultimately may | Same statement as pathway | "We believe that if policy makers extend their comprehensive and integrated approach of disease control by targeting at | Lifestyle theory | Poor hygiene and lack of access to proper food are the major reasons for latent tuberculosis |

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| | among the tribal population of Melghat: A cohort study (2016) | | infection in the malnourished tribal population of Melghat. | dispose other risk factors which include illiteracy, poor hygiene practices, and poor diet which lead to latent tuberculosis infection." | | least household level factors, like socio-economic status (SES) and living conditions (LC), the prevalence of LTBI in such isolated regions of the country would be much under control." | | infection. Hence, the Lifestyle theory could be applied in this study. |
| 38 | Socioeconomic status and esophageal squamous cell carcinoma risk in Kashmir, India (2013) | Esophageal Cancer | To study esophageal squamous cell carcinoma (ESCC) risk with low socioeconomic status (SES), in Kashmir. | "Higher education, living in a kiln brick or concrete house, use of liquefied petroleum gas and electricity for cooking, and higher wealth scores all showed an inverse association with esophageal squamous cell carcinoma (ESCC) risk. Compared to farmers, individuals who had government jobs or worked in | "Formal education and appliance ownership-based wealth score, as well as living in certain house structures and using certain cooking fuels that reflected higher economic status in Kashmir valley, were inversely associated with esophageal squamous cell carcinoma | No Statement | Social Production of Disease Theory | The housing structures, whether they were made of brick or clay, determined esophageal cancer and hence the social environment of the individual determined the health outcome. Thus, social production of disease was most suited |

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| | | | | the business sector were at lower risk of esophageal squamous cell carcinoma (ESCC), but this association disappeared in fully adjusted models. Occupational strenuous physical activity was strongly associated with esophageal squamous cell carcinoma (ESCC) risk. In summary, we found a strong relationship of low SES and esophageal squamous cell carcinoma (ESCC) in Kashmir." | (ESCC) risk. In this study, living in kiln brick and concrete houses as compared to living in adobe houses was associated with a lower esophageal squamous cell carcinoma (ESCC) risk. " | | | |
| 39 | Association Between Obesity, Dental Caries | Obesity and Dental Caries | To investigate the association between dental caries, obesity | "The study indicates that 28.54% of children with | No Statement | "In future preventive programmes, the strategies | Biomedical Theory and | Higher sugar consumption is possible if income is high |

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| | and Socioeconomic Status in 6- and 13-year-old School Children<br><br>(2012) | | and socioeconomic status (SES) in 6- and 13-yearold school children in Karnataka. | sugar consumption have dental caries and that 17.83% of overweight children and 7.58% of obese children consume sugar. These results support the hypothesis that the relationship between obesity and caries is established by means of the link between the consumption of fermentable carbohydrates and the development of caries or obesity." | | should aim for nutrition control to avoid high weight as well as carries, including meal frequency control and reduction in fermentable carbohydrates." | Lifestyle Theory | and more consumption of sugar results in higher obesity and dental caries, which reflects on the lifestyle and diet of the children. Hence Lifestyle and Biomedical theory are potential choices for this article. |
| 40 | Socioeconomic status and the prevalence of coronary heart disease risk factors | Coronary heart disease risk | This study assesses the prevalence of Coronary heart disease (CHD) risk factors in different | "The findings from the study showed that coronary risk factors such as hypercholesterolemia, | "In the developed world, increased awareness and education about diet and | No Statement | Lifestyle Theory | Rapid industrialization and urbanization have brought about enormous |

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| | (2002) | | socioeconomic classes from a semiurban population of South India. | hypertriglyceridemia and sedentary life style were more prevalent among higher Socio-economic status groups. Low High-Density Lipoprotein Cholesterol (HDLC), on the other hand, was more common in lower Socio-economic status groups." | lifestyle risk factors may have been partly responsible for the decline in coronary heart disease (CHD) prevalence among the higher social classes. However, the situation in developing countries, especially in India, is different. Rapid industrialization and urbanization have brought about enormous changes in dietary patterns and lifestyles. This is most obvious among higher SES groups, which tend to | | | changes in dietary patterns and lifestyles. This is most obvious among higher SES groups, which tend to experience a greater prevalence of Coronary heart disease(CHD) risk factors. This statement indicates that lifestyle theory is appropriate in this context. |

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| | | | | | experience a greater prevalence of Coronary heart disease (CHD) risk factors." | | | |
| 41 | Hypertension and determinants of blood pressure with special reference to socioeconomic status in a rural south Indian community<br><br>(1994) | Hypertension and Blood Pressure | The aim of this study was to examine the role of socioeconomic status prevalence of hypertension and blood pressure levels among a rural south Indian community | "In this study, hypertension was observed more than twice as often in rich than in poor people. The risk of developing atherosclerosis in the first group is, therefore, considerably raised." | No Statement | "An important feature in preventing this trend can be a reduction of body weight and prevention of obesity in the higher socioeconomic classes." | Lifestyle Theory | If higher classes avail of different resources and lead a more health lifestyle, they could reduce obesity and in turn hypertension. Also rich people experience more hypertension and obesity, thus Lifestyle Theory is an imminent choice for this paper. |
| 42 | Socioeconomic Gradients and Distribution of Diabetes, Hypertension | Diabetes, Hypertension and Obesity | To conduct a comprehensive equity analysis of the socioeconomic gradients and | "This article provides a comprehensive picture of the socioeconomic | "Although the risk factor burden is greater among the higher SES. groups, | "Resource allocation should be optimized proportional to the burden of | Social Production of Disease | Since this study looks at the socioeconomic gradients, hence social production f |

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| | , and Obesity in India.<br><br>(2019) | | distribution of diabetes, hypertension, and obesity in India | gradients and distribution of diabetes, hypertension, and obesity in India using a recent national survey. We have several key findings. First, analyses of socioeconomic gradients by wealth, education, and social caste in the prevalence of diabetes, hypertension, and obesity were generally positive. The strongest and most consistent gradients were observed when using household wealth as the Socio-economic status marker. The gradients | mortality is lower,, suggesting that wealthier groups have better access to treatments and health care, possibly through private insurance or through greater affordability of out-of-pocket health expenditures.” | disease within states or districts. India’s Ministry of Health and Family Welfare has been establishing policies and strategies around the prevention and control of non-communicable diseases in recent years, including, for example, The National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke. In many districts and rural areas, however, the population continues to face a | | disease seems to be the most relevant in this context. |

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| | | | | were positive but of smaller magnitude for education and social caste. The magnitude of the gradient for each Socio-economic status marker was strongest for obesity, followed by diabetes and hypertension." | | substantial burden of communicable diseases and maternal-child undernutrition. Continuing efforts are required to ensure progress on improving the social circumstances and conditions in these areas while also promoting improvements in health behaviors such as smoking and poor diet, which can improve the cardiovascular disease risk factor profile." | | |
| 43 | Socio demographic Determinants of Preterm Birth and Small for Gestational Age in Rural | Preterm Birth and Small for Gestational Age | To address the need for population-based data on preterm birth and Small for Gestational | "A high burden of preterm births (16%) and Small for Gestational Age (SGA) (38.2%) and indicate that both maternal | "The role of maternal education in strengthening positive pregnancy outcomes is well | "Future population-based studies using ultrasound dating should be conducted in rural India, particularly to | Social Production of Disease | Since maternal education and household wealth both of which are socio-economic factors, social |

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| | West Bengal, India. (2019) | | Age (SGA) in India. | education and household wealth (p-value for trend: $p < 0.05$) are independent predicators of preterm births and Small for Gestational Age (SGA). We also determined that primigravity was in the risk Small for Gestational Age (SGA)." | documented; educated women can thus minimize information asymmetry during their pregnancy and seek out health care as needed. Greater wealth may decrease the risk of preterm and Small for Gestational Age (SGA) through multiple pathways including improved diet and nutrition status and greater access to quality health care." | improve accuracy of preterm and Small for Gestational Age (SGA) estimates." | | production of disease seems to be the most appropriate model in this study. |
| 44 | Socioeconomic inequality in functional deficiencies and chronic diseases among older | Functional deficiencies and chronic diseases | . To understand the impact of social and demographic inequalities on | "The relative contribution of socio-demographic factors to Instrumental | No statement | "Pro-poor intervention strategies could be designed to address functional deficiencies and | Social Production of Disease | Economic status and socio-demographic factors were taken into account. Hence |

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| | Indian adults: a sex-stratified cross-sectional decomposition analysis. (2019) | | the health of older adults | activities of daily living (IADL) deficiency was highest among those with poor economic status (38.5%), followed by those who were illiterate (22.5%), which collated to 61% of the total explained inequalities. Similarly, for chronic diseases, about 93% of the relative contribution was shared by those with poor economic status (42.3%), rural residence (30.5%) and illiteracy (20.3%)." | | chronic diseases, with special attention to women." | | the social production of theory would have been relevant for this paper. |
| **CASTE** | | | | | | | | |
| 45 | Caste-based social | Childhood anemia | | "Most of people of | No additional statement. The | "Eleventh five year plan for | Social Productio | As mentioned in the pathways |

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| | inequalities and childhood anemia in India: results from the National Family Health Survey (NFHS) 2005-2006 (2016) | | To examine the association of caste, adult education and household wealth with childhood anemia in India | disadvantageous castes belong to low socioeconomic groups in India. Low socioeconomic status may affect the prevalence of anemia *via* several pathways including 1) poor living and working conditions, 2) adverse health behaviors such as maternal smoking poor dietary habits and 3) limited health car use and limited health literacy which might influence their noncompliance with use of iron supplements. In our data also, more women were smokers in disadvantageous castes than in | statement on pathways was given as the explanation as to why disadvantageous caste groups have childhood anemia | anemia control for children in India can also be benefited from targeted IFA (Iron-Folic Acid) supplements to disadvantageous caste. Furthermore, future studies should investigate causal pathways that link caste to childhood anemia." | n of disease theory and Lifestyle Theory | low socioeconomic conditions such as poor living conditions was one of the major reasons for childhood anemia. Hence Social Production of Disease theory is relevant for this study. Additionally, individual factors such as dietary habits and lack of health literacy were also identified as causes of childhood anemia. Thus Lifestyle theory is also suited for this study. |

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| | | | | other caste. Thereby, these pathways might explain the association between caste and childhood anemia. “ | | | | |
| 46 | Distribution of CC-chemokine receptor-5-Δ32 allele among the tribal and caste population of Vidarbha region of Maharashtra state.<br><br>(2013) | .<br>Sickle cell anemia | To analyze the frequency of the CC-chemokine receptor-5 (CCR5)- 32 allele of the CCR5 chemokine receptor, in *Bhil* tribal and *Brahmin* caste sample sets from the population | In India, as a consequence of high consanguinity, caste and area endogamy, some communities exhibits higher incidences of the diseases, what determines a major public health problem | “The high incidences of hemoglobin S (HbS) gene in tribes than in castes attribute the age old practices of consanguinity among them. Earlier researchers have stigmatized the tribal and low caste populations with prejudice mind of confining sickle cell gene with these groups. Wrong notions that were deeply rooted in the | The most effective approach to minimize the problem of haemoglobinopathies in India is to offer genetic counseling, proper health education, sensitization to the individual concern, prenatal diagnosis and selective termination of pregnancy of the affected fetus. | Gene theory | The high incidences of hemoglobin S (HbS) gene in tribes than in castes attribute the age old practices of consanguinity among them, which is why genes theory is most suited in this context. |

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| | | | | | Indian society are that the high incidence of sickle cell gene among the tribes and lower castes is due to admixture. On the contrary, as evident from the present study the occurrence of sickle cell gene among higher caste populations is it an indication of carrying this mutant gene from ancient times independently. It is needless to say that Sickle cell anemia (SCA) is confined to the lower caste and tribal groups only.” | | | |

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| 47 | Population Differentiation of Southern Indian Male Lineages Correlates with Agricultural Expansions Predating the Caste System<br><br>(2012) | Genetic | To conduct a genetic study to understand the origin of the caste system | "The present study shows that the Major Population Groups (MPG) classification reflects the genetic structure of the Tamil Nadu populations slightly better than other models, and that both tribal and non-tribal populations possess predominantly autochthonous lineages derived from a common gene pool established during the Late Pleistocene and Early Holocene." | "Southern Tamil Nadu and the Kerala zone represent one such agricultural frontier zone that has persisted to the present after local foragers began to adopt cultivation based on agricultural sedentism around 3 Kya. Nowadays, Tamil Nadu tribes exhibit a wide variety of occupations and subsistence strategies, and mostly inhabit the Western Ghats Mountains, which harbor tropical and semi-tropical rain forests. In this context, two of the three | No statement | Gene theory | "The present study shows that the MPG classification reflects the genetic structure of the Tamil Nadu populations slightly better than other models, and that both tribal and non-tribal populations possess predominantly autochthonous lineages derived from a common gene pool established during the Late Pleistocene and Early Holocene." This statement highlight that the genetic structures were being mapped and hence gene theory is a |

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| | | | | | tribal groups associated with foraging lifestyles (Hill Tribal Foragers: HTF and Hill Tribe Kannada: HTK) show the clearest signals of genetic drift, most likely due to strong founder effects and long-term isolation." | | | possible option for this article. |
| 48 | Genetic variation in South Indian castes: evidence from Y-chromosome, mitochondrial, and autosomal polymorphisms (2008) | Genetic variation | To examine if caste endogamy has an influence on gene mapping | "Paternally-inherited Y-chromosome single nucleotide polymorphism. (SNP)s show that caste populations have greater affinity to a sample of Europeans than to a sample of eastern Asians. Unlike the Y-chromosome data, maternally-inherited | No statement | No statement | Gene Theory | "Paternally-inherited Y-chromosome single nucleotide polymorphism. (SNPs) show that caste populations have greater affinity to a sample of Europeans than to a sample of eastern Asians. Unlike the Y-chromosome |

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| | | | | mtDNA polymorphisms demonstrate a contrasting pattern – castes, regardless of rank, have higher affinity to eastern Asians than to Europeans. “ | | | | data, maternally-inherited mtDNA polymorphisms demonstrate a contrasting pattern – castes, regardless of rank, have higher affinity to eastern Asians than to Europeans.” This statement suggests the significance of genes on affinity. Consequently, gene theory could be suggested for this paper. |
| 49 | Social Affiliation and the Demand for Health Services: Caste and Child Health | Child health | To assesses the role of social affiliation, measured by caste, in shaping investments in child health | “Low caste households spend more on their children's health than high caste households in the tea estates.” | “Low caste households with access to inferior networks will distance themselves from their home | No statement | Psychosocial theory | “Low caste households with access to inferior networks will distance themselves from their home |

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| | in South India. (2007) | | | | community, which implies that their children are less likely to end up residing in their ancestral locations where the returns to human capital are relatively low. Higher returns to human capital among the low castes translate into larger investments in child health.” | | | community, which implies that their children are less likely to end up residing in their ancestral locations where the returns to human capital are relatively low. Higher returns to human capital among the low castes translate into larger investments in child health.” This statement indicates that social affiliations are being measured which makes Psychosocial theory the potential choice for this article. |

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| 50 | Women's health in a rural community in Kerala, India: do caste and socioeconomic position matter? (2006) | Mortality rates among women | Mortality rates among women<br><br>To examine the socioeconomic position of women and their self-reported health status in India | "The burden of low socioeconomic position combined with lowness of caste can lead to "double deficits" in health. Small household landholdings, which are linked with poor health, yielded high odds ratios (OR)s among SC/ST women, and to a lesser extent among Other Backward Classes women showing a magnifying effect. Forward caste women are buffered from the negative effect of small household landholdings." | No statement | "Implementing interventions that concomitantly deal with caste and socioeconomic disparities will likely produce more equitable results than targeting either type of inequality in isolation." | Social Production of Disease | Low caste women resided in poor housing conditions which increased their mortality rates. Since housing conditions resulted in higher mortality rates hence Social Production of Disease is the most appropriate approach. |
| 51 | Y-chromosomal insights into | Genetics | To examine the links between | "The Jaunpur castes showed a marked | No statement | No statement | Gene Theory | Genetics is the health outcome and genetic |

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| | the genetic impact of the caste system in India. (2007) | | genetic diversity and caste in India | reduction in genetic diversity compared with the rest of India. However, this reduction was not equally distributed among the castes, but was instead restricted to the Brahmins and Kshatriyas." | | | | diversity is being measured. Hence, gene theory could be suggested. |
| 52 | Genetic affinities among the lower castes and tribal groups of India: inference from Y chromosome and mitochondrial Deoxyribonucleic acid (DNA). (2006) | Genetics and Deoxyribonucleic acid (DNA) variation | To trace the history of Indian caste and tribal population | "The lower castes which constitute more than 85% of the hierarchical Hindu caste system have the indigenous M52, M95 and M89, as their major Y lineages. This result suggests that the Indian lower castes are genetically more associated with the tribal populations, than to the higher castes, an | No statement | No statement | Gene Theory | The statement indicated in the pathway column, highlights that Deoxyribonucleic acid (DNA) Variation is being measured and Gene theory could be applied. |

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| | | | | evocative of their tribal origins." | | | | |
| 53 | The mortality divide in India: the differential contributions of gender, caste, and standard of living across the life course. (2006) | Mortality | To examine the role of gender, caste, and standard of living to inequalities in mortality across India. | "Caste differentials in mortality were substantial among children and adolescents (aged 6–18 years) and the elderly, with scheduled tribe members experiencing a greater mortality risk across the life course. " | No statement | No statement | Lifestyle Theory | Though there are no particular statements determining the association between caste and mortality, yet in the research question it is mentioned that Standard of living among lower castes is being measured, and since Lifestyle theory could be applied. |
| 54 | Genetic structure of four socio-culturally diversified caste populations of southwest India and their affinity with related | Genetic Structure | To examine the genetic structure of four diversified caste groups in Karnataka | "The genetic affinity of Lyngayat with other related southern caste populations, like, Iyengar, Vanniyar and Tanjore Kallar reiterates its heterogeneous | No statement | No statement | Gene theory | "It is noteworthy that although the southern populations exhibited higher affinity amongst each other, the high-ranking populations, |

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| | Indian and global groups (2004) | | | past. It is noteworthy that although the southern populations exhibited higher affinity amongst each other, the high-ranking populations, like, Iyengar, Lyngayat and Vanniyar also displayed some genetic similarity to Brahmins from Bihar and Orissa, indicating that the gene pool of Iyengar and Lyngayat probably consists of genetic inputs from both southern and northern groups." | | | | like, Iyengar, Lyngayat and Vanniyar also displayed some genetic similarity to Brahmins from Bihar and Orissa, indicating that the gene pool of Iyengar and Lyngayat probably consists of genetic inputs from both southern and northern groups." This statement indicates that Genetic affinity is being measured and hence Gene theory could be a potential choice. |
| 55 | Genetic evidence on the origins of Indian caste population | Genetics | To examine the origin of the Indian castes | "The effects of high mutation rates for the Y-chromosome Short Tandem | No statement | No statement | Gene theory | The statement in the pathway indicates that Genetics and origin of caste |

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| | (2001) | | | Repeats, tend to obscure relationships between caste and continental populations" | | | | groups is being measured and hence gene theory could be applied in this article. |
| **GENDER** | | | | | | | | |
| 56 | Gender Difference in Blood pressure, Blood Sugar, and Cholesterol in Young Adults with Comparable Routine Physical Exertion (2013) | Blood pressure, Blood Sugar, and Cholesterol | To investigate the gender difference in the pattern of the clinical and biochemical indices related to Non-Communicable Diseases in young adults | "With the incidence of N0n-Communicable Diseases is rising among women, it is imperative that urgent steps should be taken to increase the level of physical activity among women." | "The plausible mechanism suggested for this kind of an observation is that the endogenous hormones of women are less atherogenic and has got less effect on insulin resistance. Neither estrogen nor androgen is now considered as a protective agent against diabetes or cardiovascular morbidities. But the effect | "Our study indicates that community programs to reduce Non-Communicable Diseases can be more effective if the observed gender difference in physical activity is taken into account and programmes tailored with the existing social customs in mind." | Biomedical Theory | "The effect of female sex hormones are found milder and the increased levels of androgens are considered a risk factor for cardiovascular events even among women. Another argument is that even though the mechanisms responsible for the gender differences in BP control and regulation are not clear, there is some |

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| | | | | | of female sex hormones are found milder and the increased levels of androgens are considered a risk factor for cardiovascular events even among women. Another argument is that even though the mechanisms responsible for the gender differences in BP control and regulation are not clear, there is some evidence that interactions between sex hormones and the kidneys could play a role. Both endogenous and exogenous female sex | | | evidence that interactions between sex hormones and the kidneys could play a role. Both endogenous and exogenous female sex hormones markedly influence the systemic and renal hemodynamic response to salt and water retention." These statements indicate that Gender hormones are being measured and hence Biomedical theory is the most applicable. |

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| | | | | | hormones markedly influence the systemic and renal hemodynamic response to salt and water retention." | | | |
| 57 | Gender inequality and bio-social factors in nutritional status among under five children attending anganwadis in an urban slum of a town in Western Maharashtra, India<br><br>(2013) | Nutritional status | This study aims to assess the nutritional status (gender differences) of 146 under-5 children attending Anganwadis | "The present study revealed that the prevalence of malnutrition is still high in urban slum area of Miraj town of Western Maharashtra and specially, under-5 children are the most vulnerable group with marginal gender differences." | No Statement | "The study highlights the awareness for the need of family planning, more attention to girl's nutrition, and educating mothers to achieve improvement in nutritional status of the girl child in spite of limited resources. Improvements in the functioning and utilization of Integrated Child Development Services ICDS | Social Production of Disease theory and Psychosocial Theory | "The study highlights the awareness for the need of family planning, more attention to girl's nutrition, and educating mothers to achieve improvement in nutritional status of the girl child in spite of limited resources." This statement suggests since mothers education and family panning determine the girl's nutrition |

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| | | | | | | Scheme need to be made in order to address the problem of malnutrition. Nutritional rehabilitation centers should be started in community and person from the community is identified and linked with health centers to treat under-nourished children. The families from communities should be encouraged for home based activities for alternative source of income, which will help in improving their purchasing power. Community support is also necessary to | | hence Psychosocial theory as well as Social Production of Disease theory both could be most suited. |

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| | | | | | | negate such gender inequalities pertaining to nutrition." | | |
| 58 | Socioeconomic Correlates of Gender Differential in Poor Health Status Among Older Adults in India<br><br>(2013) | Self Assessment of Health | This study emphasizes the need to expand geriatric health care facilities in the public health system with a special focus on gender issues | "Results from the multivariate analysis provide enough evidence to conclude that significant gender differences exist among the older adults in reporting poor self-rated health." | "A part of the older female excess in poor self-assessed health is also because older women are, on an average, more likely to be living without spouse and other members, which has a negative impact on their health. The presence of spouse and other household members provides a sense of security and opportunities for | "To combat the gender differences in health in old age, we need to formulate policies and programs that can tackle the social and economic inequality among older men and women." | Psychosocial Theory | "Much of the gender differential in reporting poor self-perceived health status among the older adults can be explained by the higher level of engagement of female older adults in unpaid work/not working followed by their higher level of illiteracy and economic dependency when compared to the older men. Apart from this, living |

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| | | | | | companionship and intimacy, which is important for the physical and mental well-being of older people. Much of the gender differential in reporting poor self-perceived health status among the older adults can be explained by the higher level of engagement of female older adults in unpaid work/not working followed by their higher level of illiteracy and economic dependency when compared to the older men. Apart from | | | arrangements also contributed much to the gender gaps in Self Reported Health. Older women were found to be more disadvantaged in terms of their current living arrangement, which contributed to the existing gender gaps. These statements emphasize that living arrangements, literacy levels were being measured and hence Psychosocial is the most appropriate approach in this context. “ |

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| | | | | | this, living arrangements also contributed much to the gender gaps in Self Reported Health. Older women were found to be more disadvantaged in terms of their current living arrangement, which contributed to the existing gender gaps." | | | |
| 59 | Gender Differences in the Prevalence of Electrocardiogram Abnormalities in the Elderly: A Population Survey in India | Electrocardiogram Abnormalities | The objective of this study was to obtain Electrocardiogram (ECG) changes with regard to age and gender. | "Electrocardiogram (ECG) predictors of myocardial damage (left bundle branch block or Q waves) were more prevalent in men. However, the prevalence of ST-T wave abnormalities in | "The differences that exist between healthy men and women in various Electrocardiogram (ECG) parameters probably reflect the interplay of anatomic, | No Statement | Biomedical Theory | Since the paper in its explanation has phrases such as differences that exist between men and women Electrocardiogram (ECG) parameters reflect genetic and hormonal |

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| | (2012) | | | females was more than that in males." | structural, hormonal, autonomic, and genetic factors." | | | factors, biomedical theory could be postulated for this paper |
| 60 | Temporal trends and gender differentials in causes of childhood deaths at Ballabgarh, India - Need for revisiting child survival strategies<br><br>(2012) | Childhood deaths | This paper measures gender differences to understand childhood death among under-five children of Ballabgarh | "In societies in which care is equal for boys and girls, baby girls have a lower mortality rate than baby boys: the ratio of neonatal mortality for boys to girls is usually at least 1.2. In the current study however, this was reversed. Data from different sources in India show that the major causes of death in the first week of life are due to asphyxia and prematurity whereas most of deaths in the 7-28 days are due to sepsis. A | No Statement | "The results of this paper emphasize the same call for a revision of strategy to a broader development paradigm (resulting in reduction of incidence) and universal coverage (addressing equity), both of which are principles enshrined in primary health care approach. This will require interventions beyond health sector as well as scaling up of health systems to deliver universal | Social Production of Disease Theory | "The results of this paper emphasize the same call for a revision of strategy to a broader development paradigm (resulting in reduction of incidence) and universal coverage (addressing equity), both of which are principles enshrined in primary health care approach. This will require interventions beyond health sector as well as scaling up of health systems to deliver |

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| | | | | review of all child deaths in the study area between 1991-95 showed that for early neonatal deaths (<7 days), there was a slight preponderance of boys (55: 45) whereas for late neonatal deaths, the ratio was reversed to 40:60, which was more or less maintained till 5 years of age." | | coverage. This demands major financial investments which governments and donor agencies need to deliberate." | | universal coverage. This demands major financial investments which governments and donor agencies need to deliberate." These statements suggest that social production of disease theory would be the most suited theory. |
| 61 | Gender based within-household inequality in childhood immunization in India: changes over time and across regions.<br><br>(2012) | Childhood immunization | This study intends to estimate gender based differences within-household inequality (GWHI) in immunization status of Indian children | No Statement | "The findings of the study are of potential value and are indicative. For example, scholars have argued that with declining fertility levels and with the advancement of sex-detection | "When children grow up healthier, they do better in school and are more productive as adults. Therefore, it is critical that government of India places investing in immunization high on their | Psychosocial Theory and Social Production of Disease Theory | "With declining fertility levels and with the advancement of sex-detection technologies, one would expect that the post-natal discrimination against the female children |

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| | | | | | technologies, one would expect that the post-natal discrimination against the female children gets converted into prenatal discrimination and the female children thus born should get equal attention and the discrimination against female children should go down." | national health agenda. Since in India boys are preferred over girls when it comes to provision for health care which includes immunization, the achievement of the above mentioned MDG (Millennium Development Goal) by India will depend on whether the Government of India is able to create an atmosphere where parents pay equal attention to immunization of both, boys as well as girls." | | gets converted into prenatal discrimination and the female children thus born should get equal attention and the discrimination against female children should go down."<br>The health outcome can be combated if parents pay equal attention to both girl boy child and the attitude of the parents towards female children increase the immunization of girl children, hence Psychosocial theory could be a potential suggestion for this paper. Further this statement |

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| | | | | | | | | “Therefore, it is critical that government of India places investing in immunization high on their national health agenda. Since in India boys are preferred over girls when it comes to provision for health care which includes immunization, the achievement of the above mentioned MDG (Millennium Development Goal) by India will depend on whether the Government of India is able to create an atmosphere where parents pay equal attention to |

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| | | | | | | | | immunization of both, boys as well as girls." suggest that context plays an important role in childhood deaths. Hence, social production of disease could also be a potential choice |
| 62 | High prevalence and gender bias in distribution of *Plasmodium malariae*infection in central east-coast India (2009) | Plasmodium malariae | To map gender differences in the spread of malaria in Orissa. | No Statement | "The plausible explanation may be due to the indoor biting property of the vector(s) responsible for *P. malariae* transmission in this hyperendemic region. Although the vectors responsible for *P.malariae* transmission in Orissa is not known, the | No Statement | Social Production of Disease Theory | Indoor biting of vectors leads to more malaria among females, because women mostly stay at home and work and hence Social Production of Disease theory could be a possible option. |

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| | | | | | higher prevalence of *P.malariae* in females may be due to higher exposure to the indoor biting vectors involved." | | | |
| 63 | Gender Identity of Children and Young Adults with 5a-Reductase Deficiency (2008) | 5a-Reductase Deficiency | To trace gender identity of children based on Male pseudohermaphroditism | "Children with 5a-reductase deficiency are usually reared as females, as the genital ambiguity is not very obvious at birth. However, they virilize later. The virilization at puberty is associated with change in gender role in most cases." | "Most patients have a male gender identity by adolescence. Some have been reported to have an uncertain gender identity in childhood which resolves at puberty leading to gender role change. Others have been reported to have female gender identity that continues post-pubertally, resulting in | No Statement | Biomedical Theory | . Since parental genes influence gender identity hence Biomedical theory is could be applicable in this context. |

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| | | | | | their maintenance of female gender role. These authors believe gender identity continuously evolves during childhood becoming fixed only after puberty. Our experience with children with differences in sex development (DSD) indicates that prenatal androgen exposure has a greater impact in determining male gender identity than the sex of rearing and socio-cultural influences." | | | |
| 64 | Gender differences in body | Body Mass Index | | "We found that both men and | "Women in families with | No Statement | Social Productio | "Women but not men were |

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| | mass index in rural India are determined by socio-economic factors and lifestyle. (2006) | | The aim of this study was to understand gender differences in measuring Body Mass Index. | women from farming households were thinner than those whose households were engaged in other types of work. Women but not men were significantly thinner in farming households that owned more land and milking animals, lived further from the main village and had a traditional joint family structure. In contrast, men but not women had higher BMIs if they lived in 'cash-wealthy' households - families living in better housing, having more material possessions, amenities, and | more land were thinner than those who owned less land. Land wealth seems to have a negative rather than positive effect on women's Body Mass Indexes, but was unrelated to men's Body Mass Indexes. Though both men and women undoubtedly have hard-working lives, the farming women seemed to have time for little else other than work. The pattern that described farming families with a joint family structure disadvantaged | | n of Disease Theory | significantly thinner in farming households that owned more land and milking animals, lived further from the main village and had a traditional joint family structure. In contrast, men but not women had higher Body Mass Indexes if they lived in 'cash-wealthy' households - families living in better housing, having more material possessions, amenities, and consuming more oil." This statement suggests that Social |

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| | | | | consuming more oil.” | women more than men. This pattern may be identifying traditional family units where young married women are at the bottom of the hierarchy of decision-making and access to resources. “ | | | Production of Disease could be most applicable. |
| 65 | A contingent valuation study to estimate the parental willingness-to-pay for childhood diarrhoea and gender bias among rural households in India<br>(2004) | Diarrhea | This paper explored parents willingness to pay for their child’s diarrhoeal episode with regard to their gender. | “This study shows that in terms of the willingness to pay for child's health care, parents differed on their valuations between sexes and were significantly biased towards male children. In general, we found that educated parents were more | No Statement | No Statement | Psychosocial Theory | “This study shows that in terms of the willingness to pay for child's health care, parents differed on their valuations between sexes and were significantly biased towards male children. Parents willingness to pay for children’s |

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| | | | | willing to pay for their child's health care compared to uneducated parents. In particular, the relationship was found to be stronger in the case of mother being educated. However, the results indicate that gender bias towards male children increased as parental education increased. Although, this result emanated from a small sample of rural households, the result nevertheless insinuates that gender bias does not necessarily diminish with higher educational | | | | health determines the health outcome" and hence based on this statement the Psychosocial Theory could be a potential option in this context. |

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| | | | | attainment. If this relationship between parental education and valuation of children (as expressed by Willingness To Pay) holds true for illness, it may well hold true for education, nutrition, access to information, and other social programmes. In other words, this disturbing trend of gender bias can give rise to an inequitable resource allocation between sexes that may lead to an imbalanced social development." | | | | |
| 66 | Gender disparities in tuberculosis: report from a rural DOTS | Tuberculosis | To examine gender differences in tuberculosis among adults aged _14 years | No Statement | "Men may have a higher risk of TB infection due to more frequent | No Statement | Psychosocial Theory | Social contacts lead to more tuberculosis among males and hence Psychosocial |

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| | programme in south India (2004) | | | | social contacts." | | | Theory was the most suited in this context. |
| 67 | Selective Gender Differences In Childhood Nutrition And Immunizatio n In Rural India: The Role Of Siblings (2003) | Childhood Nutrition and Immunizatio n | This article examines gender differences in immunization and severe stunting among surviving rural Indian children under age 5 through gaps in the literature. | "It also appears that, as hypothesized, not all girls and boys are treated equally, and there is evidence of patterns of selective neglect in the case of severe stunting and immunization that are consistent with the literature on mortality differences and that persist even after maternal, household, and community factors are taken into account. Thus, both girls and boys with only surviving siblings of the | "That parents may discriminate selectively on the basis of gender *and* on where a particular son or daughter "fits" into the overall sex composition of the family strongly suggests that parental and societal norms about the values of girls relative to boys and about a desirable family sex composition are key to explaining why certain children fare worse than | "The strength of these results for immunization has particularly sobering policy implications for programs such as the Expanded Program on Immunization, which has been in place in India for many decades." | Psychoso cial Theory | That parents may discriminate selectively on the basis of gender *and* on where a particular son or daughter "fits" into the overall sex composition of the family strongly suggests that parental and societal norms about the values of girls relative to boys and about a desirable family sex composition are key to explaining why certain children fare worse than |

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| | | | | opposite sex fare better than do children with no surviving older siblings. Conversely, children with two or more surviving same sex siblings are worse off in terms of these two health outcomes. The strength of the preference for sons and the low value of girls are evident in that the harmful effect of having surviving older siblings of the same sex alone is harsher for girls than it is for boys, while the protective effect of having only opposite-sex surviving older siblings is weaker for girls | their siblings and why girls with older sisters fare particularly badly." | | | their siblings and why girls with older sisters fare particularly badly. Parent's personal decision determines the child's immunity and hence Psychosocial Theory is the most applicable in this paper. |

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| | | | | than it is for boys." | | | | |
| 68 | Gender, family, and the nutritional status of children in three culturally contrasting states of India (2002) | Nutritional Status | This paper measures the gender differences in household composition and low weight children using the 1992–93 Indian National Family Health Survey data. | "It is only towards the end of the first year of life that the infant will be competing for a share of family resources. At older ages mothers have greater potential to discriminate in food allocation as the child stops breastfeeding. The observed insignificance of gender in the 12–48 months age group compared to the significant finding in favor of females in the 1–11 months age group in Tamil Nadu and Uttar Pradesh shows that the female gender advantage | "In Tamil Nadu a child with the 'worst' characteristics lives in a family where the mother does not watch television at least once a week, has an illiterate mother, experienced an episode of diarrhea in the two weeks prior to the survey, was small at birth, is still breastfeeding, is male, has a father who works in a manual occupation, and lives in a family which does not contain a | No Statements | Psychosocial Theory | Findings of this study highlight that family structures determine the nutritional status of the child and hence Psychosocial theory is a potential suggestion for this article. |

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| | | | | disappears in the older age group, suggesting either that their biological advantage diminishes as they get older or that gender discrimination begins to reverse the biological differences observed." | mother-in-law/daughter-in-law dyad. Conversely, a child with the 'most favorable' qualities lives in a family where the mother watches television at least once a week, the mother has a 'middle school plus' education, did not report an episode of diarrhea in the two weeks prior to the survey, was average or large sized at birth, has stopped breastfeeding at the time of the survey, is female, has a father who | | | |

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| | | | | | works in a non-manual occupation, and lives in a family which does contain a mother-in-law/daughter-in-law dyad." | | | |
| **EDUCATION** | | | | | | | | |
| 69 | Linkages between maternal education and childhood immunization in India (2012) | Childhood Immunization | To examine the impact of mother's education on immunization rates for their children. | "Educated mothers may have better knowledge of good medical practices and thus be more aware of the benefits of medical care." | No Statement | No Statement | Psychosocial Theory | Mother's education and knowledge of medicines determines a child's immunization and hence Psychosocial theory seems to be a possible option for this article. |
| **WEALTH** | | | | | | | | |
| 70 | Adult education and child mortality in India: the | Child Mortality | To examine the association between adult education and child mortality. | "Household wealth is important to consider as there have been results | No Statement | No Statement | Social Production of Disease Theory | Since household wealth is being measured hence Social |

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| | influence of caste, household wealth, and urbanization<br><br>(2008) | | | showing material factors explain away the association between education and child mortality." | | | | Production of Disease Theory could be an appropriate approach for this context. |
| 71 | Socioeconomic and gender inequalities in neonatal, postneonatal and child mortality in India: a repeated cross-sectional study, 2005-2016. (2019) | Neonatal, postneonatal and child mortality | This study examines sex variations and sex-specific wealth patterns in neonatal, postneonatal and child mortality in India. | "Across all outcomes, we identified a socioeconomic gradient where the probability of mortality decreased with increasing household wealth. We find a stronger wealth gradient in neonatal mortality for boys while the wealth gradient in child mortality is much stronger for girls. Measuring through a male: female ratio of predicted neonatal | "Globally, India and China have the most significant deficits in the proportion of women that would be expected in their populations (ie, 'missing women'), and research has suggested that the resulting surplus of men leads to social problems, such as increased crime in general, and against women in particular. | "Substantial gains towards the Sustainable Development Goals can be made by reducing neonatal mortality in poor households." | Social Production of Disease | Gender inequalities and socio-economic factors have been taken into consideration to analyze this study. Hence social production of disease seems to be the most relevant model in this context. |

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| | | | | mortality, we found greater male neonatal mortality at all levels of household wealth. We found greater female postneonatal mortality over most of the wealth distribution, except in the wealthiest households. The female disadvantage in child mortality was primarily observed in poorest households.” | India’s excess female under-5 mortality has often been attributed to a preference for sons rooted in cultural and institutional traditions. Parents may feel that sons will provide them with security in their old age, or they may believe that sons have higher earning potential, be able to sustain the family lineage and do not have the dowry costs associated with girls. Studies have suggested that economic development by itself is not enough to break down the tenacity of | | | |

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| | | | | | norms favouring sons, but that female education and access to 'modern' information through media reduces son preference." | | | |
| 72 | Malnutrition among women and children in India: limited evidence of clustering of underweight, anemia, overweight, and stunting within individuals and households at both state and district levels. (2019) | Malnutrition | The objective of this paper is to prepare a list of dual burdens of malnutrition in individuals and households across the 36 states and 640 districts of India. | "At the state and district levels, individual burdens of stunting and underweight were strongly associated with poverty (30), while maternal overweight was positively associated with wealth. The inverse relationship of CAN-WAN excess with wealth index indicates that the deviation from the expected prevalence for this dual burden | No explanation | "All the dual burdens of public health significance for which the observed prevalence is greater than the expected prevalence are a combination of two under nutrition burdens in an individual or household, which suggests the continued need for poverty alleviation. Policies that are targeted at households, such as the | Social Production of Disease | The reason for malnutrition has been attributed to lack of access to food and health resources. Hence social production of disease seems to be the fit model for this study. |

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| | | | | might be partly attributable to standard of living, a proxy for household possessions as well as living conditions. The absence of an association of excess dual burden prevalence with wealth for other dual burdens possibly indicates that, although wealth is a driver of each individual burden, any co-occurrence is driven by other factors that are not related to wealth." | | National Food Security Act, and individuals, such as "Anemia Mukt Bharat" or Anemia Free India through Intensified-National Iron Plus Initiative and the Integrated Child Development Services, could focus on better broad implementation rather than customization for a limited number of dual-burden households." | | |
| **INCOME** | | | | | | | | |
| 73 | Visual Impairment in Urban | Visual Impairment | To evaluate visual impairment among school | No Statement | "It was also evident from this study | "Our observation Justifies special planning with | Social productio n of | "Our study results indicate that refractive error |

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| | School Children of Low-Income Families in Kolkata, India (2012) | | children from low-income families in Kolkata | | that although refractive error was the principal cause of lack of visual acuity in the students, existing spectacle use before school eye screening was very low." | priority in School Eye Screening program for school children from low-income families. Identifying schools located near slum areas may help reach these children in need." | disease theory | in urban school children from low-income families in Kolkata is less compared to school children of all income categories reported from other parts of the country." This statement suggests that due to low income parents cannot take their children to regular eye checkups and hence Social Production of Disease Theory could be a potential choice for this article. |
| 74 | Convergence of prevalence rates of diabetes and cardiometabo | Diabetes and cardiometabo lic risk factors | The aim of this study was to examine temporal changes in | "As the epidemiological transition matures, the epidemic of | "This could pose a huge socioeconomic burden on developing | No Statement | Social Productio n of Disease Theory | As indicated in this study, the poor cannot afford to pay for better |

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| | lic risk factors in middle and low income groups in urban India: 10-year follow-up of the Chennai Urban Population Study.<br><br>(2011) | | diabetes and cardiometabolic risk factors in two residential colonies of Chennai. | diabetes and obesity in India and other developing countries will move to the urban poor and to rural areas as presently seen in developed countries." | countries as the poor cannot afford to pay for lifelong treatment that chronic diseases require." | | | treatment and hence Social Production of Disease Theory could be a potential choice for this article. |
| 75 | Income and Nutritional Status of the Fishing Community<br><br>Residing in Coastal Bay of Bengal: A Case Study<br><br>(2011) | Nutritional Status | The paper presents the living conditions of the 'fishing community' residing in West Bengal and Orissa, India, through the results of a survey carried out during 2006-07. | "The Body Mass Index of the population is significantly associated with the per capita household income and in turn the per capita household income depends on the amount of land. So, as we know that the study population is a fishing community, it is a necessity for them to have agricultural land for an | "The very poor households cannot restrict their consumption only to costly items like cereals but go for a lot of other items which are relatively cheap and sometimes are collected from nature such as fish and vegetables". | "Marketing and social security (including health insurance) programs should be undertaken and implemented for the benefit and upliftment of the fishermen." | Social Productio n of Disease theory | **"**The very poor households cannot restrict their consumption only to costly items like cereals but go for a lot of other items which are relatively cheap and sometimes are collected from nature such as fish and vegetables" This statement highlights that consumption |

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| | | | | amelioration of their livelihood." | | | | patterns determined the nutritional status and hence Social Production of Disease Theory could be a potential suggestion for this paper. |
| 76 | Tobacco control among disadvantaged youth living in low-income communities in India: introducing Project ACTIVITY.<br><br>(2010) | Tobacco Control for Youth | To provide an overview of Project ACTIVITY (Advancing Cessation of Tobacco Use in Vulnerable Indian Tobacco using Youth), an intervention for tobacco control for youth (10-19 years) living in low-income communities in India. | No Statement | No Statement | "The enforcement of tobacco control legislation in India e.g. ban on sale of tobacco products to those younger than 18; and prohibition of sale of tobacco products within 100 yards of educational institutions (Tobacco Control Act of India, 2003) will be integral to the success of curbing tobacco use and has been included as an | Social Production of Disease Theory | The recommendation suggested by the authors that the enforcement of tobacco control legislation in India e.g. ban on sale of tobacco products to those younger than 18; and prohibition of sale of tobacco products within 100 yards of educational institutions (Tobacco Control Act of India, 2003) |

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| | | | | | | important strategy in Project ACTIVITY (Advancing Cessation of Tobacco Use in Vulnerable Indian Tobacco using Youth)." | | will be integral to the success of curbing tobacco use and has been included as an important strategy in Project ACTIVITY (Advancing Cessation of Tobacco Use in Vulnerable Indian Tobacco using Youth) , it could be argued that if the ban on tobacco is enforced students may consciously control smoking and hence Social Production of Disease Theory could be a possibility for this article. |
| 77 | Income inequality and the | Nutritional Status | This study examined the association | "Highly unequal states are characterized by | "In addition to being an indicator of | No Statement | Social Productio n of | "Highly unequal states are |

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| | double burden of under- and overnutrion in India.<br><br>(2007) | | between income inequality and the double burden of under- and overnutrition in India. | the simultaneous existence of overconsumption by privileged groups and food insecurity among the poor." | maldistributed resources, income inequality may also be a marker of a less generous, or inefficient, public distribution system, e.g. as a result of corruption." | | Disease theory | characterized by the simultaneous existence of overconsumption by privileged groups and food insecurity among the poor."<br><br>This statement indicates that Consumption patterns and belonging to a particular group determined nutritional status and hence Social Production of Disease Theory could be suggested in this context. |
| **POVERTY** | | | | | | | | |
| 78 | Multidimensional poverty, household | Short term morbidity | The objective of this paper is to | "Our results confirmed a higher | "Most of the households with poor | "Providing access to improved | Social productio | Social factors such as household |

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| | environment and short-term morbidity in India. (2017) | | examine the linkages between multidimensional poverty, household environment and short-term morbidities in India. | prevalence of short-term morbidities among those who were multidimensional poor and living in a poor household environment compared to the other households. This shows that along with poverty, household environmental conditions have an important effect on the health of the population in general and short-term morbidities in particular." | environment had low sanitation and were deprived from drinking water facilities. Hence short term morbidities affected these households more." | sanitation, drinking water and cooking fuel requires a multipronged strategy that will certainly improve the health of the population." | n of disease | environment, poor sanitation were the determinants of short term morbidities. Hence, Social production of disease theory was the most suited for this study |
| 79 | Addressing poverty through disease control programmes: examples from | Tuberculosis | The purpose of this study was to understand the pro-poor initiatives of tuberculosis control | "The participants in the study discussed the barriers in accessing diagnostic and treatment services, | "Several factors identified as impeding access to TB diagnostic services among the poor | "There is a need for evaluating and addressing wider issues related to poverty within the scope of the TB Control | Social Production of Disease Theory | "Several factors identified as impeding access to TB diagnostic services among the poor |

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| | Tuberculosis control in India<br><br>(2012) | | programme in India. | especially among the poor and vulnerable populations within their jurisdictions." | include lack of awareness of existing TB services, lower education levels among the marginalized groups, sub-optimal or ineffective Advocacy, communication and social mobilization (ACSM) implementation by the Revised National TB Control Programme (RNTCP), discrimination in relation to gender/age/religion, and apathy of health care providers towards the poor." | Programme. Addressing health inequities necessitates multi-sectoral coordination, and that sustained TB control efforts involving pro-poor approaches with resulting decline in TB prevalence among the poor and advancing the welfare of the poor seems likely. This is possible only when intensified efforts sustained by the Revised National TB Control Programme (RNTCP), are augmented with coordinated and synergistic efforts of concerned departments across diverse | | include lack of awareness of existing TB services, lower education levels among the marginalized groups, sub-optimal or ineffective Advocacy, communication and social mobilization (ACSM) implementation by the Revised National TB Control Programme (RNTCP), discrimination in relation to gender/age/religion, and apathy of health care providers towards the poor." These statements highlight that |

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| | | | | | | sectors dealing with populations that are considered to be poor." | | lack of education and low income results in lesser knowledge about tuberculosis and hence Psychosocial Theory could be a potential choice for this paper. |
| 80 | Multidimensional Poverty and Child Survival in India<br><br>(2011) | This paper measures the relationship between poverty, multidimensional space and child survival | Child survival | No Statement | "People who are educationally poor might not fully realize the benefits of the maternal and child care while those are economically poor may perceive health services as unaffordable. Second, early marriage of girls and early motherhood, poor nutritional intake of mother during | "From policy perspectives, multidimensional poverty clearly demonstrates the multiple deprivation of a household in the key domain of human development, that is, education, health and living standard and inequality in child health outcome. The multidimensional poverty index | Psychosocial Theory | "Since, early motherhood, illiteracy and the inability to afford better health care services among the mothers who belonged to poor families determined the survival of the child and hence Psychosocial Theory could be an approach for this article. |

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| | | | | | pregnancy (may cause low birth weight), poor environmental condition (unsafe water, no sanitation facilities, use of cooking arrangement, crowding etc), exposure to childhood diseases are equally higher among educationally, economically health poor." | will serve better for policy formulation as it can address the growing inequality in health care utilization and health outcome among population sub-groups in the country effectively." | | |
| 81 | Poverty, child undernutrition and morbidity: new evidence<br><br>from India<br><br>(2005) | Child Undernutrition | Using anthropometric data this study examined the relationship between anthropometric failure, poverty and morbidity | No Statement | "Undernourished children are also more likely to come from poorer backgrounds (20, 24) where they do not get enough food and are exposed to poor living conditions (e.g. lacking proper | No Statement | Social Production of Disease Theory | low income, lack of food and poor living conditions result in undernutrition among children and hence Social Production of Disease Theory could be suggested in this context. |

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| | | | | | sanitation or clean drinking water), which in turn lead to disease and further under nutrition." | | | |
| 82 | Impact of poverty on the prevalence of diabetes and its complications in urban southern India (2001) | Diabetes | To study the impact of poverty on diabetes. | "The finding of lower prevalence of diabetes in the socially deprived urban Indians was in contrast to the positive association of diabetes and social deprivation in western countries." | "This was likely to be due to a higher level of physical activity in the low-income group (LIG), as most of them were engaged in manual work involving moderate to strenuous physical activity." | No Statement | Lifestyle Theory | The findings of the study show that lack of physical activities resulted in more diabetes and hence Lifestyle Theory could be suggested for this article. |
| **SOCIO-ECONOMIC POSITION** | | | | | | | | |
| 83 | Socioeconomic Position and Prevalence of Self-Reported Diabetes in Rural Kerala | Diabetes | This article examines the relationship between socioeconomic position (SEP) and self-reported diabetes among | No Statement | No Statement | "The state has witnessed dramatic improvements in the quality of life of people, consequent to urbanization. | Lifestyle theory | Based on the recommendations of this paper it could be argued that as Quality of life improves diabetes |

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| | India: Results From the PROLIFE Study<br><br>(2012) | | the rural population of Kerala, India. | | | Diets are getting richer and physical activity is declining as the middle class is burgeoning. The burden of diabetes is likely to be much higher in the immediate future, calling for effective preventive strategies." | | increases and hence Lifestyle theory could be a potential option for this article. |
| **IMMIGRANT** | | | | | | | | |
| 84 | Diabetes in Immigrant Tibetan Muslims in Kashmir, North India. (2018) | Diabetes | The current study is designed to assess the occurrence of diabetes and its risk factors in an ethnically distant community. | "These data suggest that high-altitude adaptations may offer protection from diabetes at high altitude but the risk of diabetes would increase at lower altitudes especially when coupled with the adoption of a | No explanation | "Further studies into the mechanisms underlying these changes are required to understand the reasons for higher prevalence of diabetes among this population when compared to the Tibetans living at high altitudes and | Social Production of Disease | Living conditions of the immigrants are the main reasons for their diabetes. Hence, Social Production of Disease is the main model for this study. |

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| | | | | non-traditional diet." | | native Kashmiris living at the same altitude." | | |
| 85 | Maternal health care access among migrant women labourers in the selected brick kilns of district Faridabad, Haryana: mixed method study on equity and access. (2018) | Maternal health care access | This study documented the maternal health care utilization among women labourers working in brick kilns in an area of Haryana, north India. | "Majority (81.7%) of women in our study belonged to SC/ST, a disadvantaged section which is associated with poor uptake of antenatal care. Age wise break up of institutional delivery showed that older women had less institutional delivery rate. Women's social class, and more number of years in brick kilns along with location of brick kilns might have limited the access to institutional care at the time of delivery. | "Majority (81.7%) of women in our study belonged to SC/ST, a disadvantaged section which is associated with poor uptake of antenatal care. Age wise break up of institutional delivery showed that older women had less institutional delivery rate. Women's social class, and more number of years in brick kilns along with location of brick kilns might have limited the | "Firstly, mapping of such unorganised migrant settlements and reaching out to them through the public health system is needed. Intense information education and communication activities targeted to migrant populations about the existing public health facilities, free referral transport, Rashtriya Swasthya BhimaYojana (RSBY) is an important strategy. Since, Janani Suraksha Yojana | Social Production of Disease | In this study caste and migrant status both of which are socio-demographic factors, the social production of disease seems to be the most relevant model. |

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| | | | | Circular migration has also shown to affect health service uptake at place of origin. Many preferred government health facility for care during pregnancy and opted for institutional delivery if good facility, free treatment, and quality of care was available.” | access to institutional care at the time of delivery. Circular migration has also shown to affect health service uptake at place of origin. Many preferred government health facility for care during pregnancy and opted for institutional delivery if good facility, free treatment, and quality of care was available.” | (JSY) is a 100% centrally funded scheme, the health system could become flexible to provide cash incentives for institutional delivery to migrants at their place of work. It must be ensured that migrants avail maternal and child health care with zero out-of-pocket expenditure irrespective of work place. This is expected to increase the uptake of maternal health services. Under the mobile health map programme, migrant populations are accessing primary health care in the | | |

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| | | | | | | United States Similarly, considering the seasonality of migration, local public health system must be sensitised to provide outreach maternal health services using dedicated migrant mobile health units involving frontline workforce such as ASHA (Accredited Social Health Activist). There is a scope to report how social inequity influence health indicators in national level surveys. For this National Family Health Survey (NFHS) and District Level Health | | |

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| | | | | | | Survey (DLHS) must include such migrant population in their surveys. Concerted efforts by the concerned stake holders within and outside public health system to address maternal health needs of migrant women is need of the hour to achieve universal health coverage." | | |
| 86 | Prevalence of Neglected Tropical Diseases (Leishmaniasis and Lymphatic Filariasis) and Malaria Among a Migrant Labour Settlement in Kerala, India. | Neglected tropical diesease and Malaria | A cross sectional study was conducted to assess the prevalence of Neglected Tropical Diseases and malaria among migrant labor settlement in Kochi. | "Level of education, type of native house, presence of domestic animals, use of mosquito nets and habit of sleeping outside was not found to be statistically significant for the | "The living conditions of these migrant laborers are very bad with poor personal hygiene, poor sanitation and overcrowding making it conducive for vector breeding | "Only active surveillance among the migrant workers and their subsequent treatment coupled with clean environment will help in averting a possible outbreak. The | Social Production of Disease | This study also focuses on clean environment and hygiene and sanitation. Hence social production of disease seems to be the most relevant model for this study |

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| | (2019) | | | prevalence of malaria and filariasis according to this study." | and consequent transmission of malaria and other vector borne diseases." | findings of the present study will help formulate policies to implement measures to prevent transmission and re-emergence of these vector borne diseases. The public health care system along with the ministry of labour should address this important emerging issue." | | |
| 87 | Access to childhood immunisation services and its determinants among recent and settled migrants in Delhi, India | Immunisation services | The objective of the study is to understand the access of childhood immunisation services to the socio-economically disadvantaged migrants. | "Childhood immunisation coverage rates were low as only 31% of recent-migrant children and 53% of settled-migrant children were fully immunised against seven | "Lack of awareness of the immunisation schedule and location of health facilities, mobility, illness of the child, fear of | "There is a need to deliver services with a focus on recent migrants. Investing in education and socio-economic development and providing secured | Social Production of Disease | Educational background and access to health resources are the main reasons for low immunization among children. Hence social |

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| | (2018) | | | vaccine-preventable diseases (VPDs) by 12 months of age." | vaccines and side-effects were the main reasons for incomplete or no immunisation. Mother's educational attainment, TV viewership, hospital birth and receipt of information on childhood immunisation from the health workers during postnatal visits increased chances of getting the child fully immunised against seven vaccine-preventable diseases (VPD)s by 1 year of age." | livelihoods and equitable services are important to improve and sustain access to healthcare services in the long run." | | production of disease seems to be the most relevant model. |
| 88 | Determinants of internal migrant health and the | Migrant Health | To study internal migrant health and how these | "Our quantitative data on self-reported illness | "Despite these connections between internal | "The importance of internal labour migration for | Social Production of Disease | Migrant's health is affected due to hazardous |

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| | healthy migrant effect in South India: a mixed methods study. (2017) | | determine migrant health outcomes. | demonstrates that migrant workers and non-migrant adults from the same rural area have similar health profiles. However, migrant males under age 40 appear to have a higher prevalence of some health problems including connective tissue problems. Moreover, for health problems reported among migrant workers, the relationship between a particular health outcome and migrant labour activities was obvious in some cases (e.g., a broken arm due to a workplace accident). At | migrant activities and poor health outcomes, the similar health profile between migrant and non-migrant adults in this context calls into question the idea that internal migrant workers have a distinct health advantage over their non-migrant counterparts. In the research area, non-migrant adults are largely engaged in agricultural work, either on their own land, or on the land of large landowners. This work is physically demanding, | individuals and households in this setting and throughout India means the diagnosis of health problems associated with internal labour migration must be combined with the identification and measurement of the determinants of internal migrant health. With greater resources allocated to public health interventions that respond to these contextual determinants of health, it is more likely that internal labour migration will contribute to the expected gains in human development for | | conditions and their living conditions have also been considered. Hence social production of disease seems to be the most relevant model. |

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| | | | | other times though, the association between health and migrant labour was less clear (e.g., joint pain attributed to ongoing manual labour), however the causal relationship between migration and a poor health outcome was clear in the mind of the respondent" | and as other studies have demonstrated, rural agricultural workers, are at risk for a host of occupational hazards and health problems. In some cases, rural-to-urban and rural-to-rural migrant workers are exposed to similar working conditions as non-migrant workers." | migrant workers and their households." | | |
| 89 | Evaluation of the Universal Immunization Program and Challenges in Coverage of Migrant Children in Haridwar, Uttarakhand, India. (2015) | Immunization | This study evaluated the Universal Immunization Programme (UIP) among migrants in Haridwar in two blocks. | "Our evaluation indicated low immunization coverage with gaps in the health system in terms of inadequate cold chain maintenance, inadequate monitoring, and poor | "The community did not adequately utilize the services due to lack of counseling from the health staff, lack of awareness, and social determinants | "We recommended mobile immunization teams comprising auxiliary nurse midwives (ANMs) and Accredited Social Health Activists | Psychosocial Theory | Lack of counseling and literacy rates were the main reasons for low immunization. This study mapped how the social environment has an impact on the |

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| | | | | implementation of systems for tracking dropouts." | such as low literacy level." | (ASHA) to cover widespread rural migrant clusters. Interventions such as counseling of parents, prelisting of migrant children with the help of local brick kiln managers/contractors at construction sites, and incentivizing Accredited Social Health Activists (ASHA) for these activities could be considered. All injection safety and cold chain guidelines were to be stringently implemented. Mechanisms to track dropouts and supervision needed to be strengthened to | | migrants. Hence psychosocial theory seems to be the most relevant model for this theory. |

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| | | | | | | improve the coverage. In October 2013, Government of Uttarakhand, sanctioned a special "Brick Kiln Plan" which covers 200 kilns in Haridwar wherein every Tuesday 11 mobile immunization teams covered five brick kilns each. Three field supervisors were recruited for monitoring and microplanning. An "ASHA reward" (Accredited Social Health Activists) scheme was initiated to encourage Accredited Social Health Activists | | |

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| | | | | | | (ASHA) working in migrant clusters for mobilizing the dropouts and left-outs.” | | |
| *Note: The references mentioned in the contents of the articles being analysed have not been added to the reference list of this article and can be viewed by directly visiting those particular articles.* | | | | | | | | |