

SOCIO-ECONOMIC DETERMINANTS OF GROWING HEALTH PROBLEMS IN MULTAN CITY-PAKISTAN

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Abstract-The aim of this research paper is to measure the impact of food, water, education and poverty on health. This study is based on primary data and secondary data. A sample of 200 students including male and female is collected through random sampling technique. The respondents included in the survey belonged to both urban and rural areas. SPSS version 21 was used to analyze various aspects of growing health problems. We used statistical tools, such as simple regression, multiple regression and ANOVA. The dependent variable was “Growing Health Problems” and independent variables were “Low Education & Awareness”, “Unhealthy Food & Water”, “Poverty” and “Low Income”. Our study found that there are significant relations between “Unhealthy Food & Water”, “Poverty & Low Income” with growing health problems.

Type of study: **Original Research Paper**

Keywords: Growing Health, Socio-Economic Determinants, Poverty, Low Income, Health, Less education & Awareness.

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1. INTRODUCTION

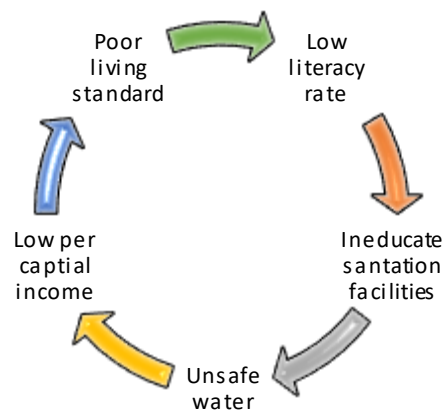
1.1 Background of the Study

Health is a wealth is a very well-known to everyone. For the economic development of any country, it is very important that the people of the country are physically fit. Growing health problems are a big curse for the under developed countries. In these countries people are suffering from epidemic disease, low per capita income as well as low living standard. Health economics is used to improve health through public health promotion activities. Health economists apply the theories of disparities, competition, production, regulation and efficiency to inform private sector on the most resourceful along with the public sector through fair course of actions and cost effective methods.

Health can be explained by examining the health view or health conditions of the population. World Health Organization (WHO) in its report, 1980 defined good health as “people of a state should benefit mentally, physically and social well-being and there should be no or less disease in them. Healthy people are good for the society, culture and give the “means by which people can follow their goals in life”. If we compare the life of the highly educated people with the uneducated people, we think that highly educated people have healthier life due to the awareness about good and bad things. The health of any community, society or individuals is not dependent on a specific factor or cause. Actually, it is the product of psycho-social conditions, the interaction of environments, beliefs with our genetic inheritance, cultural norms and socio-economic status. There are some factors such social exclusion, low occupational position, poor housing, favoritism, unhealthy early childhood circumstances and poverty that cause many deaths, create health inequalities between and within countries’ and most disease (WHO 2004). In the society, bad health and poverty lean towards each other. On every continent across the world it has been observed that

socio-economic prosperity and health are positively related to human population since long. The WHO (World Health Organization) defined the lifestyle in 1986 as the ‘patterns of (behavioral) choices from the opportunities that are available to people according to their socio-economic status and the ease with which they are able to choose certain ones over other’. Lifestyle components are the behaviors involved in the appearance of heavy drinking, drug use, lifestyle disease, smoking, poor food and physical apathy.

There are socio-economic factors that determine the health of the people. These factors have been determined by WHO, which are as follows: -



The above diagram shows various factors that affect our health. The different factors of health in a society has an important role in the policies to use them to improve the health and maintain their health (Mustard 1996). There are some factors that are not changeable which are gender, hereditary (genetic) and age. There are universal factors, at the other extreme, that are affecting our health. The historical events show the health status of Pakistani peoples which are: the present situation of terrorism are some examples and wars with India. Health is affected by many economic, social and cultural factors. Here explain some determinants which having significant effect and

these are cultural norms, income, poverty, housing, employment, occupation and education.

1.2 Main Research Problem

Our main research problem is the “Socio-Economic Determinants of growing health problems at Multan city.” We have bifurcated our research problem into the following questions: -

1. What is the Health Status of the people of Multan city?
2. What is their living standard?
3. What are resources for drinking water and its quality?
4. What is the quality of food?
5. What is the literacy rate?
6. What is Poverty rate?

1.3 Objective of the Study

The objectives of our study are outlined as under: -

1. To find out the determinants that affect health of the people of Multan city.
2. To study the cause of growing health problem in Multan city.
3. To suggest measures how to reduce health problems in Multan city.

1.4 Scope of Study

The scope of this research study is wide because in this study we will measure the impact of chronic diseases on health of people and their productivity. The results of this study will be very useful for policy makers and enable them to frame policies that reduce health problems and improve the working capability of people as well as their productivity.

2. LITERATURE REVIEW

We review the literature of different scholars about what they have commented on the socio-economic determinants of growing health problems.

Beck and Mishra (2010) worked on Quality of Life of Oraon, Sambalpur town of Orissa, India. Oraon is one of the oldest tribe of eastern India. They used Quality of Life Index. The major finding of the study was the people of the area was very poor, low educational status, poor sanitary and housing facilities, poor fuel and energy availability and low per capita income. So, there was an urgent need to introducing income generating program, educational and health awareness program and help them, government nongovernmental organizations take apart to improve the status of tribes.

Petrie et al (2013) examined the role of health determinants in the dynamic of income related inequality. This research analyzed improvement in health sector.

Marmot (2010) argued on such goals of improvement cannot be achieved and also describe that the health inequalities caused by the social and economic determinants. For identifying the causes and their solutions two-part model were used in this research. Probit Model was used for dynamic health functions that helps to understand the role of health determinants. Health changes due to expected mortality and expected morbidity. The major finding of the study was these socio-economic determinants directly and indirectly effects health. But income plays a vital role for affecting health. Comtarero and Pascual (2005) identified the relation between Socio Economic Status and Health (Evidence from ECHIP). They used Probit Model and their socio economic factors (gender, age, education level, material status, income and occupation and Disease) affected the individual's health status of people of the Spain from (1994-2001). The main goal of this research was increase the education level, income and strong social relationship was necessary for good health status.

Ingleby (2012) presented Ethnicity Migration and the social determinants of health. In European research and making policy there was a strong tendency to remove social determinants that become a cause of inequalities. In this study much importance was given to those factors that were caused inequalities and make policies for reducing these evil from the society.

Noronha ET AL (2010) shows the relation between Health and Economic Growth among the Brazilian state. They take different epidemiological and morbidity profits which observe among the state, many health measure were identified like infant mortality rate, hospital morality rate number of deaths from selected reason like (vascular disease, Diabetes, Cancer, Aids, and other communicable disease. In respect of Solow's Model, they show that the Health of Brazilian people were positively co-relate with economic growth. They also found that the decreases in the infant mortality rates were closely linked with higher economic growth rate.

Moonesinghe (2006) explained the institutional and economic determinants of the public health system performance. The objective of the study was found the availability and quality of essential public health services and factors that give rise to these determinants. The study found the association of institutional financial and community characteristics of local public health delivery system and its performance. Performance measure by the collection of public health system from seven states and used secondary data. Multivariate, linear and non-linear regression models were used to estimates the relation between them. Specifying investment of financial aid from government is helpful for the up gradation of the health sector.

Bloomfield et al (1998) prepared report about the economic factors and social cultural of health in New-Zeeland. The major point of this report was social cultural and economic determinants of health and high lights the affected areas of New-Zeeland. The result shows that income and social life of the people of the country affect the

life and health of New-Zeeland. The national health committee of the country managed plan for the reduction of health and social disease and also spend more funds for the upgradation by the funding authorities of New-Zeeland.

J.Ruhm (2015) analyze the Health effects of economics crises by using state and country level data from the United States from 1976-2016. This data showed morality effects on the economic condition of the country. By using panel data methodology explain the relation between economical inequalities and morality. Economic crises increase poverty. The economic recession becomes reason of increasing rate of suicides.

A work program on economic, social and cultural factors of health by the National Health Committee (NHC) is extremely interesting for both countrywide and worldwide. In January 1996, NHC was providing independent advice to the Ministry of Health and believe in main concern of public health service that would be openly funded and linked to the public health. In this research, public health refers to the overall hard work of a society and to impede to save and promote health, reduce health inequalities, disease and injury. To improve the health status of the population, responsibilities and actions are very important. 'Public health' refers the publicly funded health services, this report uses term population health as an alternative of public health.

Khadija (2013) conducted socio-economic determinants of health in rural Pakistan. This research identified key aspects of health inequality. Result calculated by income-health hypothesis. The absolute income hypothesis, relative income hypothesis and the income inequalities. The major finding of the study was inequality in income become a cause of health problems and inequalities. A household health status linked with their present socio-economic environment. Household with handsome income

enjoy a better health. In the rural Pakistan relative to income and absolute income are major determinants of health.

Some studies were used life expectancy as indicator of health and hence a quadratic relationship between the rate of economic development and human capital. Studies concluded that human capital increases economic development at a decreasing rate. (Gallup & Sachs 2001)

Hussain (2009) explored relations between Health and Economic Development, saying that the healthy environment does not depend on economic development. He used cross sectional data in find out the factors like increase life expectancy, healthy childhood etc. These factors are not only improved the health of the society but also become the reason of the economic development of the Country.

2.2 Distinction of this Study

In present study we identifying those factors which effect the health of the people of Multan city. Healthy people play important role in the development of the country. It is the first study, which has been conducted to study the growing problem of health in Multan city.

3. THEORETICAL FRAMEWORK

Health depends on physical and mental health of human being. The health refers the vigor, physical health, mental power of the people. No doubt physical and mental health is God Gifted.

Adam Smith, who is the founder of classical economics, says that a person passes his life according to his work and he must be given such a wages that he could maintain his life standard and in certain cases his wages must be more. If such does not happen he will not be able to bring up his family. This will result in demise of labour after the first generation. As Prof Schultz says “The investment in man results in human recourse development. To develop human resources, he mentions five methods (a)

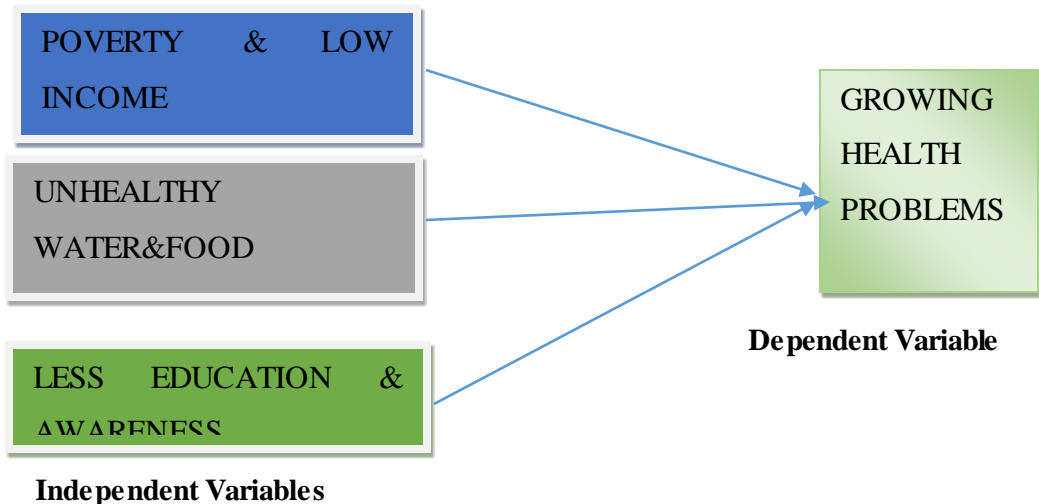
The expenditure on skill and education (b) The expenditure on basic, formal, secondary and higher secondary education (c) The expenditure on adult education and extension program in agriculture (d) The expenditure made on technical education and import of technical persons and (e) The expenditure on health”.

Human development Index analyzed comparative situation of socio-economic development in both UDC and DC in the light of United Nations Development Programmed (UNDP) annual series of Human Development reports. These reports were started in 1990 and their main goal was to develop Human Development Index and Physical Quality of Life Index (PQLI).

According to Gunner Myrdal, “The state intervention is indispensable to remove social backwardness and improve social, ideological and political atmosphere of the country, such all will contributed to economic growth of a country”.

The most recent health problems are poor living standard, poverty, low literacy rate, inadequate sanitation facilities and unsafe water that have badly effect on the economy of any country. The government of Pakistan have succeeded to remove sufficient amount of health inequalities across the country. The government should introduce health care insurance system for government employees and for low-income workers so that expended to cover the majority of the population (Case 2002). Yasin ET AL (2004) deeply investigate the socio-economic factor affecting mother and child health in Multan. The selected area is suffered from the ignorance of health care facilities. Total 993 married females were interviewed during door-to-door survey. This study found that literacy level has a strongly correlation with mother and infants vaccination. By using primary data and chi-square test methodology the results show females whose husbands were highly educated and their annual income was high has a higher percentage of vaccination themselves and their babies. Mother’s occupation also considerable but that was not a good indicator.

Figure 1 **Conceptual Model:**



1.3 Social and Economic Determinants of Health

(a). **Education** is one of many factors that contribute to social status of human being. An individuals' social position in childhood influences their access to educational opportunities. The outcome of education influences their social position in various ways and by influencing whom they get together, by impact on employment opportunities, and by fixing their income, where they exist. Each of these factors indirectly influences a person health. But education also has a more direct effect on health.

(b). **Poverty & Low Income**. Absolute poverty refers to having inadequate assets to meet basic needs for healthy food, clothing, shelter and education. People living in poverty lack the resources and opportunities to make choices that promote bad health. Being poor may also expose them to substandard environment that place them at risk for health problems

© **Unhealthy Food and Water** also plays a vital role for poor health. Change in land use soil quality choice of crop is essential for health of individuals. In Pakistan many cities are suffering from the curse of unsafe water and Multan city is one of them. The sanitation system and drinking facilities are very poor.

4. RESEARCH METHODOLOGY

4.1 Research design

Research design is a master plan specifying the procedures for collecting data, for different methods and analyzing the data on basis of needed information. Approximately, there are six basic research methods for causal and descriptive research: observation, surveys, experiments, focus group discussion, communication analysis (content analysis) and case study. The available data sources, objectives of the research, the cost of obtaining the data and the urgency of the decision will determine the method to be chosen. Therefore, our concern is with primary data and here our study is based on surveys method. The data will be collected through a structured questionnaire from randomly selected respondents.

4.2 Data and Type

Basically two types of data are used in research. One is primary data and second is secondary data. Primary data is based on interviews and questionnaires etc and secondary data is obtained from research journals, books, etc. Here our concern is with primary data. So we use only primary data in this study.

4.3 Data collection method:

Survey is a research technique in which information is gathered from a number of persons using a questionnaire targeting them by considering sample.

In this study, a questionnaire was carefully constructed and appropriately setup to collect primary data for our survey. Every question contains two or more than two categories or options to choose. The questionnaire covered the whole purpose of the

sturdy. In the first part, questions were related to demographic data like age, gender group education etc. The second part deals with the questions and their answers.

Descriptive statistics was used to analyze the data and simple linear regression method was used to check the all variables' significance level statistically. Assurance was given to respondents that their responses would be treated in confidence.

The descriptive study design was used to examine different variable factors which show the significance between the both types of variables. To express and analysis of the results a descriptive statistics techniques were used. Microsoft Excel and the Statistical Package for Social Sciences (SPSS 21.0) were used to analyze the data. To explain the characteristics of different variables, the collected data was analyzed by using descriptive statistics like percentages, frequencies etc. The data was presented in the form of tables, bar and pie charts for better understanding its behavior and characteristics.

4.3.1 Sample size:

Data was collected from Multan city through a structure questionnaire, which contained multi-choice and open-ended question that were asked verbally to get answers. Respondents were health problem victims, doctors and those who relate health sector. The size of sample was 200 and the respondents were selected randomly.

4.4 Selected Variables

4.4.1 Dependent Variable

A dependent variable is a variable that depends or is a consequence of another variable. In this research the dependent variable is given as under: -

- Growing Health Problems

4.4.2 Independent Variables

The following three independent variables are: -

- Low Education & Awareness
- Unhealthy Food & Water
- Poverty & Low Income

4.5 Hypothesis:

- H₁ “Unhealthy Food & Water” has positive significance relationship with “Growing Health problems”.
- H₂ “Low Education & Awareness” has positive significance relationship with “Growing Health problems”.
- H₃ “Poverty and Low Income” has positive significance relationship with “Growing Health problems”.
- H₄ “Low Education & Awareness”, “Unhealthy Food & Water” and “Poverty and Low Income” has positive significance relationship with “Growing Health problems”.

4.6 Analytical tools

Keeping in view the nature of data we have used Ordinary Least Square method, Multiple Regression and Correlations analysis as analytical tools of this study. The equation of the model is engraved as follows:-

$$Y = \alpha + \beta x$$

The relationship between variables Y and X is described by using the equation of the line of best fit with β indicating the slope of the line (also known as the regression coefficient) and α indicating the value of Y when X is equal to zero (also known as the intercept). The regression coefficient β describes the change in Y that is associated with a unit change in X. β only provides an indication of the average expected change.

$$Y_i = \alpha + \beta x_i + u_i$$

Where $i = 1, 2, 3, \dots, 200$

Moreover, i denotes the respondent, Y_i is the dependent variable, x_i is an observations of independent variables for the i respondent, where u_i denotes the unobservable individual effect.

4.7 Specification of Model

We have used multiple linear regressions because in our model there are four variables one is dependent and other three are independent variables. One dependent variable that is “Growing Health Problems” and “Low Education & Awareness”, “Unhealthy Food & Water” and “Poverty & Low Income” are independent variables. In this study each value of independent variable that would be associated with the value of dependent variable. Multiple linear regression measures the percent of change in independent variables that brings change in dependent variable in a positive or negative manner.

The following regressions will be estimated;

$$GHP = \alpha + \beta_1 LE + \beta_2 UHFW + \beta_3 PLI + u_i$$

Where

GHP = Growing Health Problems

LEA = Less Education & Awareness

UHFW = Unhealthy Food & Water

PLI = Poverty & Low Income

4.8 Descriptive Statistics:

Descriptive statistics basically tells about what the data demonstrate. The frequency and percentage of data is going to help us to manage large amount of data in very reasonable and presentable way.

4.9 ANOVA:

Analysis of variance (ANOVA) is used to determine whether there are any significant differences between the means of three or more independent (unrelated) groups. In

this study, we want to see the impact of “poverty & low income” on “growing health problems”. We utilized ANOVA to see the model significance.

5.DATA ANALYSIS

5.3 Demographic Variables.

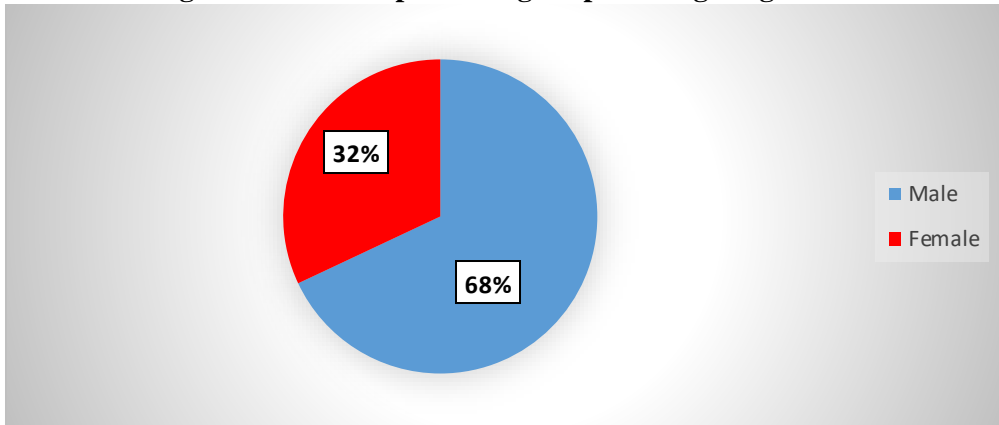
The detailed information has been given in this section about the demographic characteristics of the respondents of this study. This section has all the details of respondent concerning to their gender, age, residence, duration of living in area and marital status.

Table 1 Frequency Distribution of Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	136	68.0	68.0	68.0
	Female	64	32.0	32.0	100.0
	Total	200	100.0	100.0	

Table 1 shows the frequency and percentage of the male and female respondents of our study. Among 200 respondents there were 136 were male and 64 were female respondents.

Figure 2. Pie chart presenting the percentage of gender



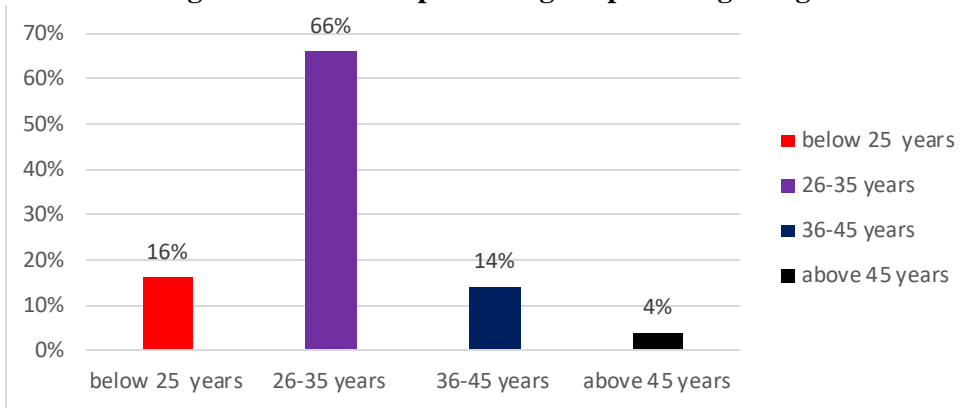
Above Pie chart shows that there were 68% male and 32% female respondents.

Table 2 Frequency Distribution of age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Age group	below 25 years	32	16.0	16.0	16.0
	26-35 years	132	66.0	66.0	82.0
	36-45 years	28	14.0	14.0	96.0
	above 45 years	8	4.0	4.0	100.0
	Total	200	100.0	100.0	

The frequency and percentage of different age groups is given in table 2. The table 5.3.2 describes the data of our respondents related to their age. Out of 200 respondents, 32 respondents were below 25 years, 132 respondents were between 26-35 years, 28 respondents were 36-45 years and only 8 respondents were above 45 years.

Figure 3 . Bar chart presenting the percentage of age



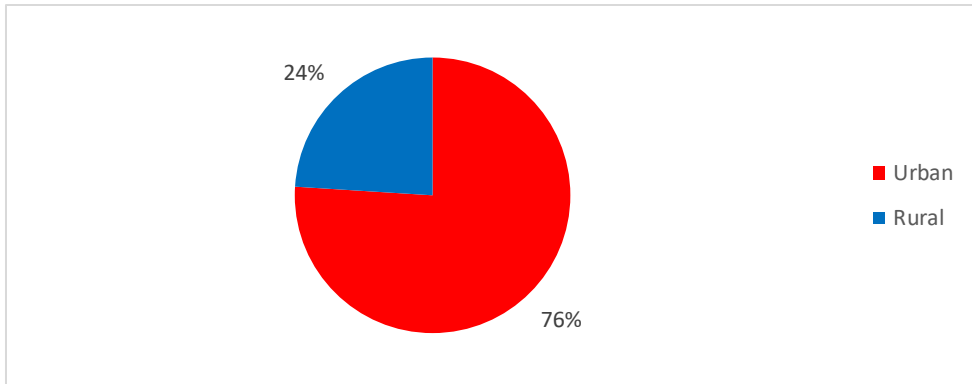
There were 16% respondents below 25 years, 66% were 26-35 years, 14% were 36-45 years and 4% were above 45 years as shown in above bar chart.

Table 3 Frequency Distribution of Residential area

		Frequency	Percent	Valid Percent	Cumulative Percent
Residential area	Urban	152	76.0	76.0	76.0
	Rural	48	24.0	24.0	100.0
	Total	200	100.0	100.0	

The table 3 shows the frequency and percentage of the urban and rural respondents of our study. Among 200 respondents, there were 152 respondents belonging to urban areas and 48 respondents from rural areas.

Figure 4 Pie chart presenting the percentage of Residential area



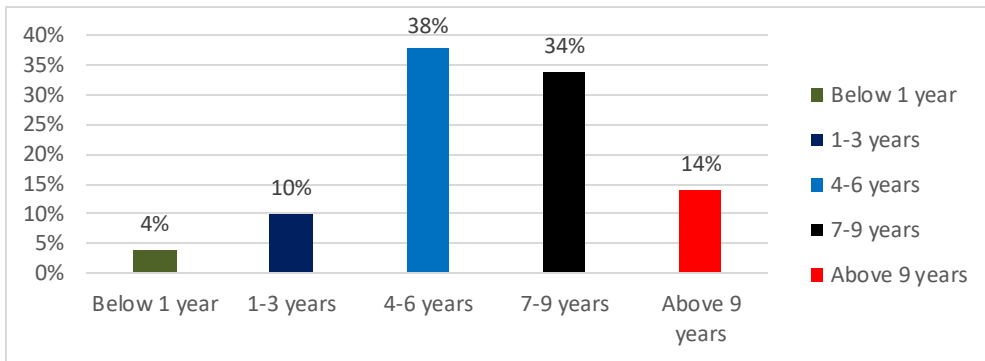
Above Pie chart is presenting the percentage of Residential area. There were 76% belonging to urban areas and 24% from rural area.

Table 4 Frequency Distribution of Duration of living in the area

		Frequency	Percent	Valid Percent	Cumulative Percent
Duration of living in the area	Below 1 year	8	4.0	4.0	4.0
	1-3 years	20	10.0	10.0	14.0
	4-6 years	76	38.0	38.0	52.0
	7-9 years	68	34.0	34.0	86.0
	Above 9 years	28	14.0	14.0	100.0
	Total	200	100.0	100.0	

The frequency and percentage of duration of living in the area is given in table 4. The table 5. describes the data of our respondents related to their duration of living period. Out of 200 respondents, 8 respondents were living below 1 year, 20 respondents were living between 1-3 years, 76 respondents were living 4-6 years, 68 were living 7-9 years and 28 respondents were living above 9 years.

Figure 5. Bar chart presenting the percentage of duration of living



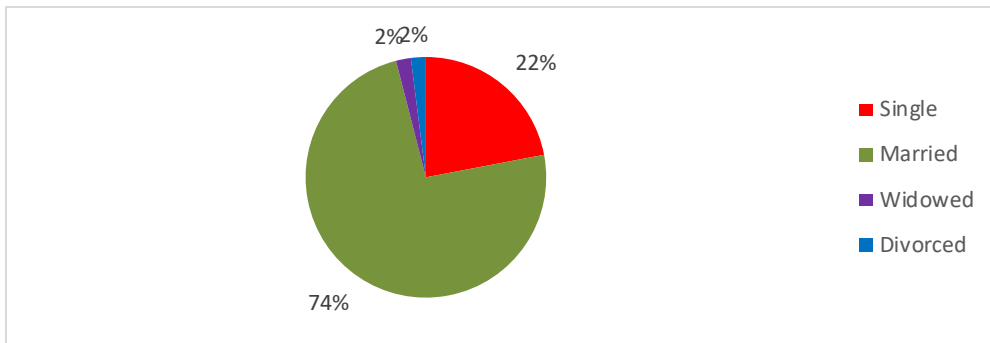
Above Bar chart presenting the different percentage of duration of living of our respondents

Table 5: Frequency Distribution of Duration of Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Marital status	Single	44	22.0	22.0	22.0
	Married	148	74.0	74.0	96.0
	Widowed	4	2.0	2.0	98.0
	Divorced	4	2.0	2.0	100.0
	Total	200	100.0	100.0	

Table 5 shows the frequency and percentage of marital status of our respondents. Among 200 respondents, there were 44 respondents were single or unmarried, 148 were married, 4 were widowed and 4 were divorced.

Figure 6. Pie chart presenting the percentage of marital status



Above Pie chart presenting the marital status of our respondents.

5.4 Regression Analysis

The detailed information has been given in this section about the dependent and independent variables of this study. The main dependent variable of the study is “Growing Health problems” and independent variables are “Less Education & Awareness”, “Unhealthy Food & Water” and “Poverty & Low Income”. All the hypothesizes has been analyzing through simple and multiple regression. The coefficient of determination R square (R^2) tells about the goodness of fitness of the model. If the value of R^2 is high, It means that higher will be the variation in the dependent variable due to the independent variable. The regression analysis is given below

5.4.1 Simple Regression Analysis of Hypothesis 1

To test hypotheses 1, a simple regression analysis is used to analyze the relationship of growing health problems with the unhealthy food & water.

Hypothesis 1

H_0 : “Unhealthy Food & Water” has no significance relationship with “Growing Health Problems”.

H₁ : “Unhealthy Food & Water” has significance relationship with “Growing Health Problems”.

Table 6 Model Summary

Model	Rural	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.364 ^a	0.133	0.128	1.37003

a. Predictors: (Constant), Unhealthy Food & Water

Table 6 reveals the R square of the model that describe the variations in dependent variable (i.e. Growing Health problems) due to the independent variable (i.e. Unhealthy Food & Water). In the above model, the value of R Square is 0.133 that describe the 13.3% variations explained by the predictor variable.

Table 7 ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	56.838	1	56.838	30.282	0.001 ^b
	Residual	371.642	198	1.877		
	Total	428.480	199			

a. Dependent Variable: growing health problems

b. Predictors: (Constant), Unhealthy Food & Water

The table 7 shows the ANOVA, which is used to describe model, is significant or not. The p-value of the above table is 0.001 that is called statistically significant because it is less than 0.05. Therefore, the model is statistically significant for this research and statistic shows that this model is functional. In addition, this model explains the positive effect of independent variable on dependent variable.

Table 8 Regression Coefficients for independent and interaction variable

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.042	0.965		18.702	0.001
	Unhealthy Food & Water	-0.348	0.063	-0.364	-5.503	0.001

a. Dependent Variable: Growing Health Problems

The regression values is 0.001, which forecasts the dependent variable from the independent variable. In this regression line, the B is the coefficient values which is B= -0.348 and p-value is =0.001 that is less than from 0.05. So above table shows that our alternative hypothesis is accepted and gives the positive impact of “Unhealthy Food & Water” on “Growing Health Problems”. In other words, we can say that the quality of is very important and health is directly affected by it. The quality of food is poor almost in all our areas of Multan as our results and p-value suggests that there is significant relation between unhealthy food and health. The role of water in our lives is also very vital, as it is extremely essential and responsible for both batter and poor health. All living things depends on water and as a human being it is especially important for batter life. As above regression analysis shows that our null hypothesis is rejected indicating that water influences on various health problems. Unfortunately, the condition of water beneath the surface of earth and availability of healthy water in all over Multan is also very poor as all over Multan. We can find water filter plants for purification of water in different areas of Multan but most of the people are still lacking of pure water. But our regression analysis shows that water in affecting the people of Multan as it shows significant relationship between water and health.

5.4.2 Simple Regression Analysis of Hypothesis 2

A simple regression analysis is used to test hypotheses 2 between “Growing Health Problems” and “Less Education & Awareness”.

Hypothesis 2

H₀ : “Less Education & Awareness” has no significance relationship with “Growing Health problems”.

H₁ : “Less Education & Awareness” has significance relationship with “Growing Health problems”.

Table 8 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.121 ^a	.015	.010	2.15304
a. Predictors: (Constant), Less Education & Awareness				

Table 8 displays the R square of the model, which describe the variation in dependent variable due to the independent variable. In this model 1.5% variations was explained by the predictor variable which is very small. There is almost no variations in the data due to the independent variable i.e. Less Education & Awareness.

Table 9: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	13.677	1	13.677	2.950	.087 ^b
	Residual	917.843	198	4.636		
	Total	931.520	199			

a. Dependent Variable: growing health problems,

b. Predictors: (Constant), Less Education & Awareness

The table 9 shows the ANOVA which is used to describe significance of the model.

The significance value is 0.087 that is greater than the p-value 0.05 or 5% of alpha.

Therefore, the model is not statistically significant for this research. This statistic

show that the current regression model is not significant and not functional. However, it explains positive effect of independent variable on dependent variable.

Table 10 Regression Coefficients for independent and interaction variable

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23.453	1.306		17.963	.000
	Less Education & Awareness	.248	.145	.121	1.718	.087

a. Dependent Variable: growing health problems

In the above table 10, the regression value predicts the dependent variable due to the independent variable. In this the B=0.248 is the coefficient value which is for independent variable i.e. Less Education & Awareness and p-value is 0.087 that is greater than from 0.05 which leads towards the alternative hypothesis rejection. Therefore, we can say that our regression line is not significant or there are no impact on growing health problems due to the education in our city. As we know that education is very important to distinguish between right and wrong but education does not directly affect our health as our above results. The p-value suggests that our null hypothesis is accepted so there is no significant relation between education and health.

5.4.3 Simple Regression Analysis of Hypothesis 3

To test hypotheses 3, a simple regression analysis is used to analyze the relationship between growing health problems and poverty & low income.

Hypothesis 3

H₀: "Poverty & Low Income" has no significance relationship with "Growing Health problems".

H₁: “Poverty & Low Income” has significance relationship with “Growing Health problems”.

Table 11 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749 ^a	.561	.559	1.43749

a. Predictors: (Constant), poverty & low income

Table 11 reveals that the R square of the regression model, which describes the variation in dependent variable due to the independent variable. In this model 56% variations, was explained by the predictor variable i.e. poverty & low income.

Table 12: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	522.377	1	522.377	252.798	.001 ^b
	Residual	409.143	198	2.066		
	Total	931.520	199			

a. Dependent Variable: growing health problems

b. Predictors: (Constant), poverty & low income

The table 12 shows the ANOVA, which is used to describe either the model is significance or not. The significance value of p-value is 0.001 which is less than 0.05. Therefore, our current regression line is statistically significant for this research. This statistic show that the model is significant and it explains positive effect of independent variable on dependent variable. The model also shows sum of squares and degrees of freedom with mean square as well.

Table `13 Regression Coefficients for independent and interaction variable

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.845	.689		21.545	.001
	income	.839	.053	.749	15.900	.001

a. Dependent Variable: growing health problems

In the above regression model, the value of coefficient B forecasts positive relationship between the dependent and independent variable. The sig.=0.001 is also called p-value that is less than from 0.05 (p-value=0.001) which leads us towards the acceptance of our alternative hypothesis i.e. Poverty & Low Income” has significance relationship with “Growing Health problems”. Therefore, we can say that “Poverty & Low Income” variable has significant impact on dependent variable i.e. “Growing Health Problems”. As we know that income is very important to buy good healthy foods. There are very poor people in most of the areas of Multan therefor it is very difficult to buy quality foods or basic things. Above regression analysis indicates that poverty and low income directly influences health problems. The p-value suggests that there is a significant relationship between low income and health problems.

5.4.5 Multiple Regression Analysis of Hypothesis 4

To test Hypotheses 4, a multiple regression analysis is used to analyze the relationship of “growing health problems” with “less education & awareness” “unhealthy food & water” and “poverty & low income”.

Hypothesis 4

H₀ : “Less Education & Awareness”, “Unhealthy Food & Water” and “Poverty & Low Income” has no significance relationship with “Growing Health problems”.”.

H₁ : “Less Education & Awareness”, “Unhealthy Food & Water” and “Poverty & Low Income” has significance relationship with “Growing Health problems”.

Table 14 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.762 ^a	.580	.573	1.41296

a. Predictors: (Constant), poverty & low income, Unhealthy Food & Water, Less Education & Awareness

Table 14 reveals the R square of the model, which describe the variation in dependent variable due to the independent variables. In this regression model, the value of R² is 0.580, which means that 58% variations was explained by the predictor variables.

Table 15 ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	540.216	3	180.072	90.196	.001 ^b
	Residual	391.304	196	1.996		
	Total	931.520	199			

a. Dependent Variable: Growing Health Problems

b. Predictors: (Constant), Less Education & Awareness, Poverty & Low Income, Unhealthy Food & Water

The table 15 shows the ANOVA which is used to describe significance of current model. The p-value is 0.001, which is less than from 0.05 so the model is statistically significant for this research. This statistic show that the model is statistically significant and it illuminates positive effect of independent variables on dependent variable. The model also displays sum of squares and degrees of freedom with mean square.

Table 16: Regression Coefficients for independent and interaction variable

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.258	1.339		12.138	.000
	Poverty & low income	.778	.056	.695	13.789	.000

	Unhealthy Food & Water	-.102	.046	-.112	-2.211	.028
	Less Education & Awareness	.096	.057	.079	1.683	.094

a. Dependent Variable: Growing Health Problems

There are regression values in the above table 16, which give prediction about the dependent variable due to the independent variable. In this multiple regression line, the dependent variable is “growing health problems” and there are three independent variables i.e. “Poverty & Low Income”, “Unhealthy Food & Water” and “Less Education & Awareness”. The p-value of the predictor (i.e. Less Education & Awareness) is 0.094 which is greater than 0.05. Therefore, in the light of above facts, we can say “Less Education & Awareness” is not affecting the dependent variable. On the other hand, the other predictor “Unhealthy Food & Water” is affecting the dependent variable because having p-value less than 0.05 and “Poverty & low income” is also affecting because of the p-value less than 0.05.

5.5 ANOVA

To compare the means between the variables ANOVA test is applied.

5.5.1 Hypothesis

H_0 : Mean “Poverty & Low Income” has no effect on “Growing Health Problems”.

H_1 : At least one pair of the mean is different.

Table 17: Impact of “Poverty & Low Income” on “Growing Health Problems”

Poverty & Low Income		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	61.059	7	8.723	2.457	.020
	Within Groups	681.661	192	3.550		

	Total	742.720	199			
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Table 17 shows that “Poverty & Low Income” is statistically significant at 5% level of significance. So, it can be concluded that Poverty & Low Income has an effect on “growing health problems” because p-value is 0.020.

6. CONCLUSIONS

In this section, we discuss the conclusion and recommendations and this chapter is divided into different sections. The conclusion of the whole study is given in the first section and in second section, researcher gives some limitation of the study and in third section, the researcher for further research gives valuable recommendations.

Health refers to physical and mental health of human being. Health includes the intelligencer of the people, vigor, mental power and physical health as well. The physical health, no doubt, is a God gifted and an ancestral character. On the other hand, the unhealthy persons can be cured and health can be improved by providing better health services to the people. Health is depended upon the activities of humankind. It is an improved and good health that is responsible for strength, capacity to work, liveliness, efficiency and productivity. Thus, not only a person with better health will be able to earn more, but the production of the economy will also increase. So better health leads towards the country, wealthy and rich. On the other hand, ill fed, ill-treated people, the incapacitated and mal nourished, will have the negative effect on the economy. Therefore, it is required to pay more attention on provision of health services.

The shortage of water resources and finding clean water are major problems for Pakistan. In Pakistan, the Indus River that supplies water throughout the agricultural plains in Punjab and Sindh and also it is only one major river in the country. Other people has very little access to fresh water that are far from Indus River. The insufficiency of water poses a serious threat to the lives of millions of Pakistanis and

also threatens Pakistan's economy. The problems like water pollution and shortage of water are getting worse day after day. The sources for water pollution include the misuse of the dumping of industrial wastes into lakes and rivers, chemical fertilizers, contaminated pipelines being used to transport water and untreated sewage being dumped into the ocean. Due to polluted water it is very hard to find fresh or clean water and that is increasing the occurrence of waterborne diseases. Therefore, mostly health problems in Pakistan are reported either a direct or an indirect result of polluted water. 60% to overall waterborne diseases and 45% of infant deaths are due to diarrhea. (Jabeen A. et. al. 2015)

In this research, the main focus on different factors of growing health problems such as unhealthy food, unhealthy water, poverty and low income that are the most responsible factors of both better and poor health. In this present study the results of the hypothesis 1 was significant which proves that growing health problems is associated with relates to the unhealthy food and unhealthy water. There are many diseases like dysentery, diarrhea, hepatitis a, and lead poisoning etc. which can be spread due to the unhealthy food and unhealthy water. In our study 76% population was from urban areas and in the city of Multan underground water is polluted and in previous study, unsafe drinking water are affecting one billion people of the world's population (UN Millennium Project, 2002).

In 2nd hypothesis our independent variable was education and results shows that there is no significant relationship between growing health problems and education.

In present research, in hypothesis 3 dependent variable was poverty & low income. To see the relationship between growing health problems and poverty & low-income, regression analysis was applied. The analysis showed a positive relation between growing health problems and poverty. Every day 800 million people stay hungry due to poverty and low income (UN Millennium Project, 2002).

Therefore, it can be concluded from the present research that growing health problems are due to “poverty and low income” and “Unhealthy Food & Water” as their p-value was less than 0.05.

7.RECOMMENDATIONS

The following are the recommendations and future directions are made by keeping the observations of this study:

- 1.Unhealthy food & water is the main problem of Multan city. The food and water play an important role for good and healthy life. Therefore, for this purpose good quality food and pure water should be provided to improve better and healthy life.
- 2.Many people are poor in our study and unable to bear the cost of food. Therefore, government should pay attention to reduce the poverty rate.
- 3.Government should also make complete balance and check on the quality of food which is available in the market.
- 4.Price of good increase day by day rapidly that why most of the people can't afford fruits and other good quality of food. Government should control the price of basic needs.
- 5.As a result, good healthy people are better for country and also supportive for their families. On the other hand, unhealthy people will have the negative effect on the both country as well as economy. Therefore, it is required to pay more attention on providing of health services.

8.LIMITATION OF STUDY

The study has following limitations;

- The first limitation of the study is related to its areas. This study is conducted by the researcher in Multan therefore its results cannot be generalized for whole province of Punjab.

- The second limitation of the study is its resources available like limited time and finance. The respondents were not given any payment or reward on their response so it may be possible that the data is biased.
- The respondents answered all questions on the basis of their memory because they did maintain record of their income and expenditures.
- Most of the respondents were reluctant to provide information about their income because they fear that these information may be used by Tax authorities.

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