

# MEASUREMENT OF HEALTH DIMENSION OF SEX- WORKERS' CHILDREN: A COMPARATIVE ANALYSIS ON THE BASIS OF NORTHERN AND SOUTHERN RED LIGHT AREAS OF WEST BENGAL

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**Abstract:** Sex Workers are part of society but they are totally marginalised by rest of the society. From very ancient time to recent period sex workers and their children face so many problems in their everyday life and live a miserable life. This paper identifies Health as major dimension for development of sex workers' children. It also identifies and measures some well-defined indicators of Health dimension as a major component of development of sex-workers and their children. This paper constructs a specific measurement of the Health attainment of sex workers' children. This paper makes a comparative analysis of South Bengal & North Bengal on the basis of achievement in Health dimension of development of sex workers' children through a primary survey conducted by the author in the year 2021-22. Finally this paper gives some policy suggestions for improvement of health dimension of the sex workers and their children on the basis of the present discussion.

**Keywords:** Sex Workers, Sex Workers' Children, Physical Health, Mental Health, Indicators of Health Component.

## **Introduction**

Sex Workers can be regarded as marginalised people in our society. They and their family, specifically their children live a miserable life. Women related to this profession and also their children lead a most insecure, shameful and economically backward life. But this is a profession which was prevalent from the very distant past. Sex -Workers give Sex-Services to their customers against money. Children of sex-workers also face

so many problems. If the previous history is considered, it can be found that the lives of sex-workers are full of struggles. Sex work is an exchange of sexual services, performances, or products for material compensation, including direct and indirect sexual stimulation. From individual and social point of view these people are deviated from the main stream of society. At present though directly many plans and policies have been taken

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for them but in reality these people are isolated from all of social facilities.

### **Rationale of the Study**

The children of the sex workers are very tragic and no systematic investigation has been carried out from analytical point of view to consider them as human resource. As far as the present study regarding the health aspect of the sex workers' children is concerned, the matter is overlooked most poignantly not only on the national plane but also in the context of West Bengal. This consideration has prompted the spirit of enquiry to conduct an analytical and statistical investigation to study the condition of both the physical and the mental health aspect of the sex workers' children against the backdrop of West Bengal.

### **Research Objectives**

To give the present study a scientific and systematic pattern the following research objectives are formulated to construct measurement of health attainment of the sex workers' children and in respect to that to make a comparative analysis between the Northern and Southern red light areas of West Bengal.

The objectives of the present study set the following:

- To illustrate Health as major dimension/component for development of sex workers' children.
- To find out and measure some well-

defined indicators for measuring the major problems faced by the sex-workers and their children particularly in their Health dimension.

- To measure the Health attainment of sex workers' children.
- To make a comparative analysis of South Bengal & North Bengal on the basis of achievement in Health dimension of development of sex workers' children.

### **Research Methodology**

First of all the research methodology and data collection process of the present study are described elaborately. Ensuring the health of all sections of society, including all the marginalised class, is essential to poverty eradication efforts and attaining sustainable development. Health is a crucial human right according to the Universal Declaration of Human Rights, as long and healthy life of the people allows them to reach their full potential, children to be better able to live and learn and workforces to be more productive. Hence development aspect of sex workers' children must include Health as a special dimension. In this context it should be mentioned that both physical and mental health should be given equal weightage when considering overall health component. A healthy body accelerates learning. Hence improved Health component has also an impact on the education system.

Indicators of Health Component can be specified as follows:

Table 1: Indicators of Health Component

Health Component	Indicators No.	Indicators of Health Component
Physical Health	1.	Eating Disorder
	2.	Physical Illness
	3.	No free medical facility
	4.	Lack of Food and Nutrition
	5.	Under 5 Mortality Rate
Mental Health	6.	Mental Illness
	7.	Personality Disorder

Source: Own Specification

### Measurement of Health Component

**Firstly, two major segments of health components are identified: one is Physical Health and another is Mental Health.** Physical health can be described as the normal functioning of the body without any disease. It represents a major dimension of well-being. Disturbance in physical health may be caused due to different type of diseases and serious illness. According to World Health Organisation (WHO), "Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community". Mental health represents thoughts, feelings, and behaviours of a person. Disturbance in mental health may be caused due to depression, anxiety, bipolar disorder, addiction etc. WHO states that "Mental health has intrinsic and instrumental value and is integral to our well-being". Here five indicators are taken which represent the dimension of

physical health and two indicators are taken which represent the dimension of mental health.

**Secondly,** importance of indicators of Health component (1-5 are physical health indicators and 6-7 are mental health indicators) and their measurements are described as follows:

**1. Eating Disorder:** Eating disorder can be observed in children during childhood and adolescence. As a result of which it affects their physical health. This type of impairment is seen especially if the daily eating habits are not correct. Eating disorders can cause distortions in the body's weight and shape. In this present research study eating disorder specifically means children do not get optimum amount of food at right timings in home and at school. Hence it is taken as an important indicator of Physical Health.

It can be measured by the number of children of 0 to 18 years age group reported as suffering by eating disorder

divided by total number of population in that age group and taking it in percentage.

**2. Physical Illness:** Another important indicator of physical health is physical illness, specifically, long term physical illness and diseases with low recovery rate. This problem can be seen in children during pregnancy, at birth, and at any time after birth for any reason. These include a variety of respiratory problems, epilepsy, diabetes, asthma, arthritis, tuberculosis, chronic fatigue syndrome, sexually transmitted diseases etc.

It can be measured by the number of children of 0 to 18 years age group reported as suffering by physical illness divided by total number of population in that age group and taking it in percentage.

**3. No Free Medical Facility:** Since Sex workers are people from a particular sector which is hazardous and non-restful in nature, it is very important for them to have regular health check-ups, especially for their children. That is why it is important for the sex workers' children health to have advantage of free regular check-up and medical treatment in different government hospitals, medical camp and from various NGOs. Hence it is taken as another important indicator of Physical Health.

It can be measured by the number of children of 0 to 18 years age group reported for not getting free medical facility divided by total number of population in that age group and taking it in percentage.

**4. Lack of Food and Nutrition:** In developing countries like India, lack of food and nutrition is the main obstacle to health. That is why lack of nutrition is considered as another important indicator of physical health. Malnutrition degrades physical health. Hence it has far-reaching effects. And since sex workers' children are poor or below the poverty line, malnutrition is a very relevant issue. Lack of food and nutrition refers to not having proper food and nutrition, like cereals, fish, eggs, milk, etc.

It can be measured by the number of children of 0 to 18 years age group reported for not getting proper food and nutrition divided by total number of population in that age group and taking it in percentage.

**5. Under 5 Mortality Rate:** Under 5 Mortality Rate is universally accepted leading indicator of Physical Health component of children. According to a Report of WHO (2021): "Under-five mortality rate measures child survival. It also reflects the social, economic and environmental conditions in which children (and others in society) live, including their health care".

It can be measured by the number of deaths children in 0-5 years age group divided by total number of population in that age group and taking it in percentage.

**6. Mental Illness:** Mental health is equally important issue as physical health in today's society. Different types of problematic behaviours become obstacles

to the development process of a child. Some of these mental illnesses are schizophrenia, depression, anxiety, phobia, conflict, frustration etc. This can be taken as an important indicator of Mental Health.

It can be measured by the number of children of 0 to 18 years age group reported for mental illness divided by total number of population in that age group and taking it in percentage.

**7. Personality Disorder:** Personality disorder is a behavioural disorder. There are usually three types of personality disorder: i) Personal Level Disorders; ii) Bad Social Behaviour or Anti-Social Behaviour and iii) Special pathological disorders. It is also a major indicator of Mental Health.

It can be measured by the number of children of 0 to 18 years age group reported for personality disorder divided by total number of population in that age group and taking it in percentage.

**Thirdly**, since in this health component, indicators are taken representing non-attainment of the indicators, initially **Overall Health Non-Attainment Total (OHNA<sub>T</sub>) is calculated by taking arithmetic mean of percentage value of the 7 indicators of Health component (including physical and mental health) for a particular area. Then Overall Health Attainment Total (OHA<sub>T</sub>) is calculated by subtracting OHNA<sub>T</sub> from 100 for that particular area.**

Then **Dimension Index for Overall**

**Health Total (say, D<sub>OHT</sub>)** is calculated as follows:

$$D_{OHT} = \frac{OHA_T \text{ in the respective are} - (OHA_T)_{\min}}{(OHA_T)_{\max} - (OHA_T)_{\min}}$$

where, (OHA<sub>T</sub>)<sub>max</sub> = Observed maximum value of OHA<sub>T</sub> among all the areas

and, (OHA<sub>T</sub>)<sub>min</sub> = Observed minimum value of OHA<sub>T</sub> among all the areas.

The value of D<sub>OHT</sub> lies between 0 and 1. And more the value of D<sub>OHT</sub> better is the situation.

Similarly, Dimension Index for Physical Health Total (D<sub>PHT</sub>) and Dimension Index for Mental Health Total (D<sub>MHT</sub>) are calculating by applying same statistical formula as follows:

**Physical Health Non-Attainment Total (PHNA<sub>T</sub>) is calculated by taking arithmetic mean of percentage value of the 5 indicators of Physical Health component for a particular area. Then Physical Health Attainment Total (PHA<sub>T</sub>) is calculated by subtracting PHNA<sub>T</sub> from 100 for that particular area.**

Then **Dimension Index for Physical Health Total (say, D<sub>PHT</sub>)** is calculated as follows:

$$D_{PHT} = \frac{PHA_T \text{ in the respective are} - (PHA_T)_{\min}}{(PHA_T)_{\max} - (PHA_T)_{\min}}$$

where, (PHA<sub>T</sub>)<sub>max</sub> = Observed maximum value of PHA<sub>T</sub> among all the areas

and, (PHA<sub>T</sub>)<sub>min</sub> = Observed minimum value of PHA<sub>T</sub> among all the areas.

The value of D<sub>PHT</sub> lies between 0 and 1. And more the value of D<sub>PHT</sub> better is the situation.

• **Mental Health Non-Attainment Total (MHNA<sub>T</sub>)** is calculated by taking arithmetic mean of percentage value of the 2 indicators of Mental Health component for a particular area. Then **Mental Health Attainment Total (MHA<sub>T</sub>)** is calculated by subtracting MHNA<sub>T</sub> from 100 for that particular area.

Then **Dimension Index for Mental Health Total (say, D<sub>MHT</sub>)** is calculated as follows:

$$D_{MHT} = \frac{MHA_T \text{ in the respective area} - (MHA_T)_{\min}}{(MHA_T)_{\max} - (MHA_T)_{\min}}$$

where, (MHA<sub>T</sub>)<sub>max</sub> = Observed maximum value of MHA<sub>T</sub> among all the areas

and, (MHA<sub>T</sub>)<sub>min</sub> = Observed minimum value of MHA<sub>T</sub> among all the areas.

The value of D<sub>MHT</sub> lies between 0 and 1. And more the value of D<sub>MHT</sub>, better is the situation.

### Data Collection

Red light areas are present in almost all of the districts of West Bengal. Any type of secondary sources is not found on health condition of sex workers and their children in almost all cases. Therefore it is necessary to collect fresh data through primary survey for all the components. A primary survey has been conducted on some selected red light areas of Northern and Southern Areas of West Bengal for the year 2021-22 and Dimension Index for Overall Health Total (D<sub>OHT</sub>), Dimension Index for Physical Health Total (D<sub>PHT</sub>) and Dimension Index for Mental Health Total (D<sub>MHT</sub>) are constructed for these

selected areas and the findings are analysed.

### Selection of Northern and Southern Red Light Areas of West Bengal

Now the Northern and Southern red light areas of West Bengal are specified for which D<sub>OHT</sub>, D<sub>PHT</sub> and D<sub>MHT</sub> should be measured. West Bengal has 23 districts in survey year, among which 15 districts are in South Bengal and 8 districts are in North Bengal. Among the 15 districts of South Bengal two important districts are: Kolkata and North 24 Parganas. Four popular red light areas are selected from these two districts. Kalighat and Sonagachi red light areas are selected from Kolkata district. Leubagan and Thakurpara red light areas are selected from North 24 Parganas district. Among the 8 districts of North Bengal four important districts are: Darjeeling, Cooch Behar, Jalpaiguri and Uttar dinajpur. Four popular red light areas are selected from these four districts. Khalpara is selected from Darjeeling district, Priyaganj is selected from Cooch Behar district, Dinbazar is selected from Jalpaiguri district and Panjipara is selected from Uttar Dinajpur district. Hence *four red light areas are selected from South Bengal and four red light areas are selected from North Bengal, i.e., total eight red light areas are selected for primary survey.*

### Sampling Technique

To construct the sample survey, in the present study, the method of "Purposive Sampling" is taken. This is a non-probabilistic sampling technique. Here

respondents should be sex worker mothers according to the objective of current research study. Hence sample elements are purposively chosen on the basis of researcher's own judgement. Here those sample units are chosen from red light areas which are appropriate and actual representative of population according to researcher's judgement for the present research study.

**Sample Size**

In this primary survey 20 sex worker mothers are selected from each of 8 red light areas. *Total number of respondents is 160 sex worker mothers. Total number of children of these 160 mothers is 397.* All of these 160 mothers and their children

(children who are available at the time of survey) are surveyed.

**Comparative Analysis of Northern and Southern Red Light Areas of West Bengal on the Basis of Health Dimension of Sex Workers' Children**

**Sex-Wise Distribution of Children in Different Age-Groups in 8 Selected Red Light Areas**

Total number of children of 160 mothers is 397. Distribution of children in different age-groups (required to calculate different indicators later) for each of the eight red light areas are given in the following tables. For each table total number of sex worker mothers surveyed are 20.

**Table 2: Distribution of Children in Different Age-Groups in Kalighat**

Age group	Total No. of Children
0-5 years	8
0-18 years	42

Source: Primary survey 2021-22

**Table 3: Distribution of Children in Different Age-Groups in Sonagachi**

Age group	Total No. of Children
0-5 years	12
0-18 years	46

Source: Primary survey 2021-22

**Table 4: Distribution of Children in Different Age-Groups in Lehubagan**

Age group	Total No. of Children
0-5 years	8
0-18 years	35

Source: Primary survey 2021-22

**Table 5: Distribution of Children in Different Age-Groups in Thakurpara**

Age group	Total No. of Children
0-5 years	15
0-18 years	53

Source: Primary survey 2021-22

**Table 6: Distribution of Children in Different Age-Groups in Khalpara**

Age group	Total No. of Children
0-5 years	15
0-18 years	49

Source: Primary survey 2021-22

**Table 7: Distribution of Children in Different Age-Groups in Priyaganj**

Age group	Total No. of Children
0-5 years	14
0-18 years	53

Source: Primary survey 2021-22

**Table 8: Distribution of Children in Different Age-Groups in Dinbazar**

Age group	Total No. of Children
0-5 years	11
0-18 years	57

Source: Primary survey 2021-22

**Table 9: Distribution of Children in Different Age-Groups in Panjipara**

Age group	Total No. of Children
0-5 years	17
0-18 years	62

Source: Primary survey 2021-22

**Measuring Health Component (Physical, Mental and Total)**

Dimension Index for Overall Health Total ( $D_{OHT}$ ), Dimension Index for Physical

Health Total ( $D_{PHT}$ ) and Dimension Index for Mental Health Total ( $D_{MHT}$ ) are calculated for each area following the formula, described in previous section.



The calculations are given in the following table:

**Table 10: Values of  $OHA_T$ ,  $PHA_T$  &  $MHA_T$  and  $D_{OHT}$ ,  $D_{PHT}$  &  $D_{MHT}$  for Eight Selected Red Light Areas**

	Kali ghat	Sona gachhi	Lebu bagan	Thakur para	Khal para	Priya ganj	Din bazar	Panji para
No. of 0-18 years children → Indicator No. ↓	42	46	35	53	49	53	57	62
1.	4.76(2)	8.70 (4)	14.29 (5)	24.53 (13)	16.33 (8)	20.75 (11)	15.79 (9)	24.19 (15)
2.	9.52(4)	6.52(3)	5.71(2)	15.09(8)	12.24 (6)	16.98 (9)	15.79 (9)	17.74 (11)
3.	14.29 (6)	17.39 (8)	25.71 (9)	30.19 (16)	18.37 (9)	39.62 (21)	54.39 (31)	62.90 (39)
4.	26.19 (11)	23.91 (11)	28.57 (10)	37.74 (20)	30.61 (15)	33.96 (18)	33.33 (19)	40.32 (25)
5.	0/8* 100 = 0	1/12* 100 = 8	1/8* 100 = 13	4/15* 100 = 27	3/15* 100 = 20	3/14* 100 = 21	3/11* 100 = 27	5/17* 100 = 29
6.	21.43 (9)	28.26 (13)	20 (7)	30.19 (16)	30.61 (15)	26.42 (14)	33.33 (19)	35.48 (22)
7.	30.95 (13)	39.13 (18)	48.57 (17)	50.94 (27)	53.06 (26)	58.49 (31)	52.63 (30)	56.45 (35)
Overall Health Non-Attainment Total ( $OHNAT$ ) = (sum of 1. To 7.)/7	107.14 /7= 15.31	131.91 /7= 18.84	155.85/7 = 22.26	215.68/7= 30.81	181.22/7= 25.89	217.22/7= 31.03	232.26 /7= 33.18	266.08 /7= 38.01
Overall Health Attainment Total ( $OHNAT$ ) = (100 - $OHNAT$ )	100 - 15.31 = 84.69	100 - 18.84 = 81.16	100 - 22.26 = 77.74	100 - 30.81 = 69.19	100 - 25.89 = 74.11	100 - 31.03 = 68.97	100 - 33.18 = 66.82	100 - 38.01 = 61.99
$D_{OHT} = (OHA_T - 61.99)/(84.69 - 61.99)^1$	1	0.84	0.69	0.32	0.53	0.31	0.21	0
Physical Health Non-Attainment Total ( $PHNAT$ ) = (sum of 1. To 5.)/5	54.76/5= 10.95	64.52 /5= 12.90	87.28/5= 17.46	134.55/5= 26.91	57.55/5 = 19.51	132.31/5= 26.46	146.30 /5= 29.26	174.15 /5= 34.83
Physical Health Attainment Total ( $PHAT$ ) = (100 - $PHNAT$ )	100 - 10.95 = 89.05	100 - 12.90 = 87.10	100 - 17.46 = 82.54	100 - 26.91 = 73.09	100 - 19.51 = 80.49	100 - 26.46 = 73.54	100 - 29.26 = 70.74	100 - 34.83 = 65.17
$D_{PHT} = (PHAT - 65.17)/(89.05 - 65.17)^2$	1	0.92	0.73	0.33	0.64	0.35	0.23	0
Mental Health Non-Attainment Total ( $MHNAT$ ) = (sum of 6. And 7.)/2	52.38/2=26.19	67.39 /2= 33.70	68.57/2= 34.29	81.13/2= 40.57	83.67/2 = 41.84	94.91/2 = 42.46	85.96 /2= 42.98	91.93 /2=
Mental Health Attainment Total ( $MHAT$ ) = (100 - $MHNAT$ )	100 - 26.19 = 73.81	100 - 33.70 = 66.30	100 - 34.29 = 65.71	100 - 40.57 = 59.43	100 - 41.84 = 58.16	100 - 42.46 = 57.54	100 - 42.98 = 57.02	100 - 45.97 = 54.03
$D_{MHT} = (MHA_T - 54.03)/(73.81 - 54.03)^3$	1	0.62	0.59	0.27	0.21	0.18	0.15	0

<sup>1</sup> ( $OHA_T$ )<sub>max</sub> = 84.69 and ( $OHA_T$ )<sub>min</sub> = 61.99

<sup>2</sup> ( $PHAT$ )<sub>max</sub> = 89.05 and ( $PHAT$ )<sub>min</sub> = 65.17

<sup>3</sup> ( $MHA_T$ )<sub>max</sub> = 73.81 and ( $MHA_T$ )<sub>min</sub> = 54.03

Source: Primary survey 2021-22, Own calculations.

**Technical Note**

Measurement of each indicator of Health Component (including Physical Health and Mental Health) is already discussed in previous section. With the reference of that, the numerical calculations for all of

the Health Component indicators are now illustrated by taking the values of Kalighat as an example. Values of the Health Component indicators for other red light areas are calculated by applying similar method.

**Kalighat (as example)**

**Indicator 1:** (Number in parenthesis gives the number of children aged 0 to 18 years who are suffering from Eating Disorder)

Eating Disorder

$$= \frac{\text{number of children aged 0 to 18 years who are suffering from Eating Disorder}}{\text{total number population in that age group}} * 100$$

$$= 2/42 * 100 = 4.76$$

**Indicator 2:** (Number in parenthesis gives the number of children aged 0 to 18 years who are suffering from Physical Illness)

Physical Illness

$$= \frac{\text{number of children aged 0 to 18 years who are suffering from Physical Illness}}{\text{total number population in that age group}} * 100$$

$$= 4/42 * 100 = 9.52$$

**Indicator 3:** (Number in parenthesis gives the number of children aged 0 to 18 years who are not getting free medical facility)

No free medical facility

$$= \frac{\text{number of children aged 0 to 18 years who are not getting free medical facility}}{\text{total number population in that age group}} * 100$$

$$= 6/42 * 100 = 14.29$$

**Indicator 4:** (Number in parenthesis gives the number of children aged 0 to 18 years who are not getting proper food and nutrition)

Lack of Food and Nutrition

$$= \frac{\text{number of children aged 0 to 18 years who are not getting proper food and nutrition}}{\text{total number population in that age group}} * 100$$

$$= 11/42 * 100 = 26.19$$

**Indicator 5:**

Under 5 Mortality Rate

$$= \frac{\text{number of deaths children in 0 – 5 years age group}}{\text{total number population in that age group}^1} * 100$$

$$= 0/8 * 100 = 0$$

**Indicator 6:** (Number in parenthesis gives the number of children aged 0 to 18 years who are suffering from Mental Illness)

Mental Illness

$$= \frac{\text{number of children aged 0 to 18 years who are suffering from Mental Illness}}{\text{total number population in that age group}} * 100$$

$$= 9/42 * 100 = 21.43$$

**Indicator 7:** (Number in parenthesis gives the number of children aged 0 to 18 years who are suffering from Personality Disorder)

Personality Disorder

$$= \frac{\text{number of children aged 0 to 18 years who are suffering from Personality Disorder}}{\text{total number population in that age group}} * 100$$

$$= 13/42 * 100 = 30.95$$

**Table 11: Ranking on the Basis of  $D_{PHT}$ ,  $D_{MHT}$  and  $D_{OHT}$**

Areas	$D_{PHT}$	Rank on $D_{PHT}$	$D_{MHT}$	Rank on $D_{MHT}$	$D_{OHT}$	Rank on $D_{OHT}$
Kalighat	1	1	1	1	1	1
Sonagachchi	0.92	2	0.62	2	0.84	2
Leubagan	0.73	3	0.59	3	0.69	3
Thakurpara	0.33	6	0.27	4	0.32	5
Khalpara	0.64	4	0.21	5	0.53	4
Priyaganj	0.35	5	0.18	6	0.31	6
Dinbazar	0.23	7	0.15	7	0.21	7
Panjipara	0	8	0	8	0	8

Source: Table 10; Own Calculations.

<sup>4</sup> Reference Table 5.1

Ranking is from best to worst.

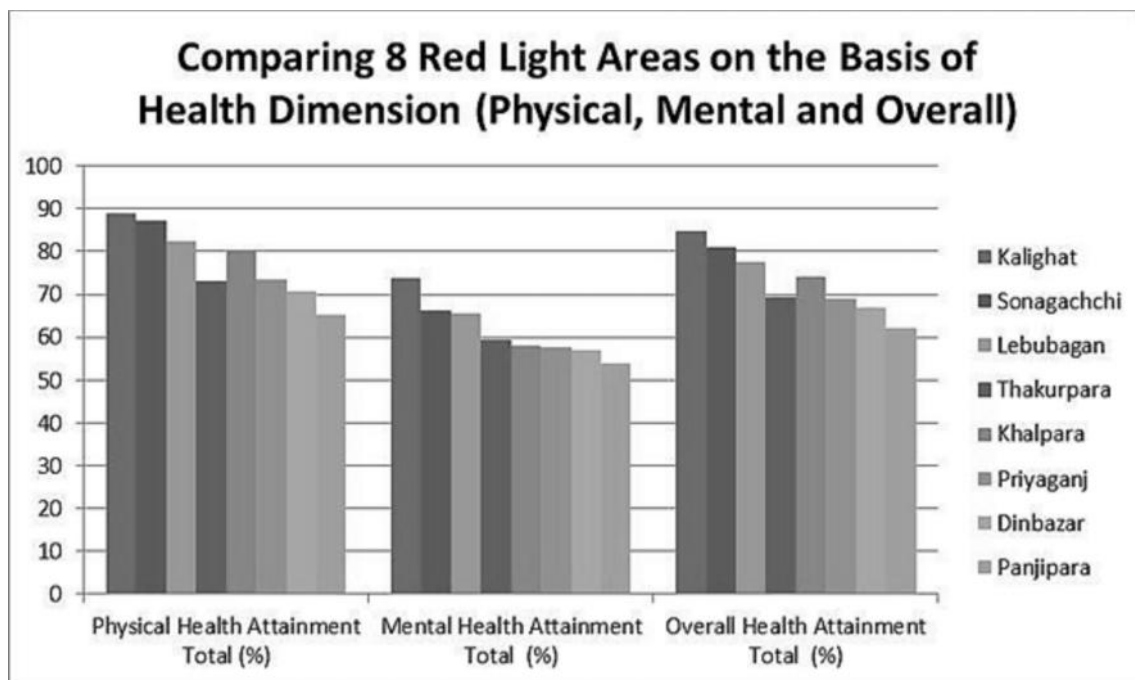
Above table vividly represents the comparative positions of the eight red light areas on the basis of dimension indices of health components.

**Comparative Analysis of 8 Surveyed Red - Light Areas of West Bengal on the basis of Health Component**

This study tries to make a comparative analysis of all the eight surveyed red - light areas of South and North Bengal,

according to their respective ranks on the basis of Health Component. It will help to know the current health situation of the sex workers and their children in these areas and also to understand the reasons of achievements and failures in this specific dimension of development of these special children. Comparative position of 8 selected red light areas on the basis of attainment of health dimension are represented by the following column diagram:

**Figure 1: Comparing 8 Red Light Areas on the Basis of Health Dimension (Physical, Mental and Overall)**



**i) Kalighat (situated in South Bengal)**

In health dimension Kalighat shows the best result compared to others. Overall Health Attainment Total (OHA<sub>T</sub>) of Kalighat is highest 84.69%. In every

indicator of both physical and mental health condition Kalighat scores well. In this context both the initiatives of Government and N.G.O.s are commendable.

This area is under Kolkata Municipal Corporation and Kolkata Police, who help immensely to develop the area. Also another N.G.O. named New Light is working very actively in this area, especially for the children of sex workers.

**ii) Sonagachi (situated in South Bengal)**

In overall health dimension index score of Sonagachi is 0.84 and holds second position. If indicators of overall health dimension are considered, it can be seen that Sonagachi experiences a slightly low performance specifically in mental health. 39.13% of total children are suffered by personality disorder and 28.26% have different types of mental illness. These are slightly high value. Kalighat shows better result in overall health index compared to that in Sonagachi.

All in these components functioning of local administration and law enforcement service, specially role of Kolkata Municipal Corporation, Kolkata Police etc. is very much significant. Also many N.G.O.s are actively working for the interests of sex workers and their children in this area. Among them Durbar is the most popular and active N.G.O.

**iii) Lehubagan (situated in South Bengal)**

In health component Lehubagan performs well. In health dimension its achievement is just after Sonagachi and Kalighat and better than other five red - light areas. Considering health component it can be found that only 14.29%, 5.71% and 20% of the sex workers' children are suffering by eating disorder, physical illness and mental

illness respectively. Overall Health Attainment Total (OHA<sub>T</sub>) of Lehubagan is 77.74% which is a satisfactory score.

Lehubagan is located near to Kolkata city, approximately 10 km. This is why this red - light area has the opportunity to facilitate with basic needs compared to other interior areas, though these facilities are marginal and negligible compared to those of Sonagachi and Kalighat. This area is under Baranagar Municipality. Local governance and administration tries to help these marginalized people and develop the area but the effort is not enough. Because this section of people is in a miserable condition, so a big push is needed for their development, especially for improvement of the health condition of the sex workers' children. In this respect the initiatives of a local club named 'Bonhoogly GCGS Yubak Sangha' can be mentioned. This club is doing needful for the betterment of the sex workers and their children throughout the year within their means.

**iv) Khalpara (situated in North Bengal)**

Khalpara shows moderate performance in health dimension. 30.61% of the total children do not have access of food and nutrition in proper quantity. Under 5 Mortality Rate is at 20% which can be taken as moderate range. Values of mental health indicators are at moderate level compared to other red - light areas. Specifically, 30.61% of the total children in this area are suffering from mental illness.

Siliguri Municipal Corporation and some local N.G.O.s are working for helping the

sex workers and their children of Khalpara red - light area. Durbar is also actively functioning here.

**v) Thakurpara (situated in South Bengal)**

It can be observed that Overall Health Attainment Total (OHA<sub>T</sub>) for Thakurpara is 69.19, which is fourth lowest among the eight red - light areas. 24.53% of the children are suffering from eating disorder, 30.19% among them have no access of free medical facility and 37.74% do not have the access of proper food and nutrition. All of these are very high values representing a critical situation for them. Under-5 Mortality Rate of this area is also high, 27%. Mental health condition of the children of this area is also agitating. 50.94% and 30.19% of the children are recorded as a sufferer of personality disorder and mental illness respectively, which is a very worrying situation, specifically for their mothers.

Thakurpara situated in South Bengal, specifically in Naihati (district: North 24 Parganas) is only 48 km from Kolkata. Still this red - light area is very poor in all aspect of living, specifically the health, conditions of the sex workers (mothers) and their children are worse. They are living their life in a very difficult way. No such help from government or administrative authority can be seen in this area. Only a few N.G.O.s are working in this area. Among them 'Naihati Win' is actively functioning for the betterment of this area.

**vi) Priyaganj (situated in North Bengal)**

In health dimension if components of

physical health of Priyaganj are considered it can be seen that 20.75% sex workers' children are suffering from eating disorder, 16.98% of them are suffering from physical illness, 33.96% are suffering from lack of food and nutrition. Analysing mental health condition it is seen that 58.49% of the sex workers' children are suffering from personality disorder. These indicate a large number of children are not in good physical and mental health condition in this area.

Priyaganj red light area is situated in Cooch Behar District of North Bengal. Performance of this area is quite dissatisfactory. The health condition of Sex workers (mothers) and children are very much deprived here. Though a few NGOs are trying to improve their situations but this is not enough to uplift their overall condition. Government must take some initiatives and should make and implement some development plans at local level so that the people residing in this area should live their life at least in subsistence level.

**vii) Dinbazar (situated in North Bengal)**

Dinbazar red light area is also very low performer in health dimension measured in this present study. This area is second lowest performer among all the eight red light areas surveyed.

Dinbazar red light area is situated in Jalpaiguri District of North Bengal. The area is totally underdeveloped. Very little effort is seen from local administration to improve their standard of living. Although few N.G.O.s are operating at local level but their activities are not

enough compared to necessities of the people living in this red light area.

**viii) Panjipara (situated in North Bengal)**

Panjipara red-light area shows the most disappointing performance. Unfortunately Panjipara holds last position among all the eight red-light areas surveyed, in health component. 17.74% of sex workers' children in this area are suffering from physical illness, 62.90% of them can not enjoy any free medical facility, 40.32% of them are facing the problem of lack of food and nutrition, 29% cases of under-5 mortality rate are found and 35.48% are suffering from mental illness. All of these are very high values and in fact Panjipara shows worst performance in all of these five indicators of health component compared to other areas.

From the above analysis it is clear that situation of sex workers and their children in Panjipara is very much worrying. It is located in rural area under Panjipara Gram Panchayat. This may be one of the

reasons that it remains totally backward. The respondents also reported that very little initiatives are taken by government or local administrative authorities to improve their overall situation. Only a few NGOs are concerned about their problems and try to help them a little bit. But they are in such a worse situation that these small acts of help, as compared to their necessities, are almost negligible to them.

**Comparative Analysis of South Bengal & North Bengal Red Light Areas on The Basis of Average Health Attainment (Physical, Mental and Total)**

Average Overall Health Attainment Total ( $OHA_T$ ), Average Physical Health Attainment Total ( $PHA_T$ ) and Average Mental Health Attainment Total ( $MHA_T$ ) for South Bengal red light areas (averaging  $OHA_{T_s}$ ,  $PHA_{T_s}$  and  $MHA_{T_s}$  for Kalighat, Sonagachi, Lebugagan and Thakurpara) and North Bengal red light areas (averaging  $OHA_{T_s}$ ,  $PHA_{T_s}$  and  $MHA_{T_s}$  for Khalpara, Priyaganj, Dinbazar and Panjipara) are calculated and given in the following table:

**Table 12: Average  $OHA_T$  for South Bengal Red Light Areas and North Bengal Red Light Areas**

	South Bengal	North Bengal
<b>Average <math>OHA_T</math></b>	(84.69+81.16+77.74+69.19) /4=78.20	(74.11+68.97+66.82+61.99) /4=67.97
<b>Average <math>PHA_T</math></b>	(89.05+87.10+82.54+73.09) /4=82.95	(80.49+73.54+70.74+65.17) /4=72.49
<b>Average <math>MHA_T</math></b>	(73.81+66.30+65.71+59.43) /4=66.31	(58.16+57.54+57.02+54.03) /4=56.69

Source: Table 10; Own calculations.

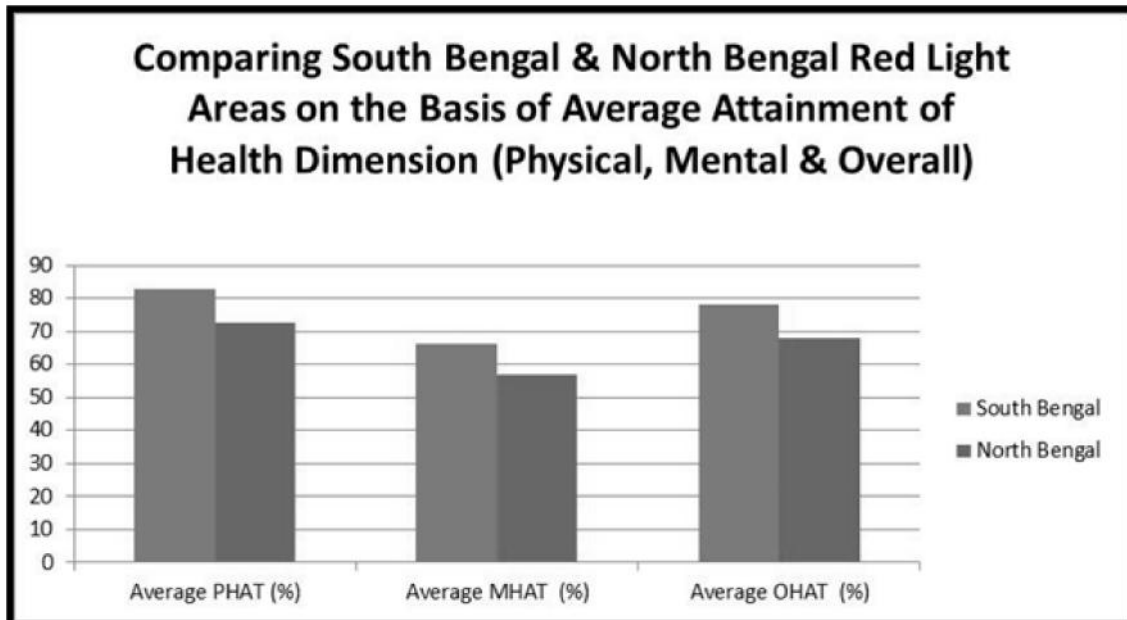
It is clear from the above table that average  $OHA_T$ , average  $PHA_T$  and average  $MHA_T$  for South Bengal are 78.20, 82.95 and 66.31 respectively and that of North Bengal are 67.97, 72.49 and 56.69 respectively. Hence, average overall health, average physical health and average mental health attainment scores of South Bengal are  $(78.20 - 67.97) \% = 10.23\%$ ,  $(82.95 - 72.49) \% = 10.46\%$  and

$(66.31 - 56.69) \% = 9.62\%$  greater than that of North Bengal respectively.

One thing can be observed that mental health attainment is lesser than physical health attainment for all eight areas surveyed whether in South Bengal or in North Bengal.

Above results can be represented through a column diagram as follows:

**Figure 2: Comparing South Bengal & North Bengal Red Light Areas on the Basis of Average Attainment of Health Dimension (Physical, Mental & Overall)**



From the above figure it is clear that average attainment of health dimension, for all of physical, mental and overall, is greater in South Bengal compared to North Bengal.

### Conclusions and Policy Suggestions

The result found can be summarized as: Firstly, according to the present study, the overall health situations of South Bengal

red light areas are comparatively better than that of North Bengal red light areas. Secondly, the light of development has not reached the children of sex workers in red-light areas located in the interior, far from the main city, irrespective of the location of the areas that is whether in South Bengal or in North Bengal. The Constitution of India declares that the country is governed by federal system, i.e.,



power is distributed between the Central Government and the State Governments. Both Central Government and the State Government of West Bengal have some policies for the protection of sex workers and their children. In last few years some initiatives are taken for the betterment of the sex workers and their children. One of the important steps regarding health care service of sex workers and their children is providing health services to them by setting up hospitals and health care centres in or near red light areas by State Governments or by NGOs with assistance from Central or State Government. Integrated Child Development Service (ICDS) project is a centrally sponsored scheme run by The West Bengal State Government. Under this project specifically the Red Light Areas of Kolkata receives services like feeding, immunization and health check-up, nutrition etc. for the victims as well as for their children too. Government Hospitals and primary health centres also play an important role to provide free medical care and treatment to the victims. Several NGOs are also providing medical care and treatment centres near Red Light Area, specially in urban areas. West Bengal State AIDS Prevention and Control Society, under Ministry of Health & Family Welfare, is working in the Red Light Area for preventing and reducing HIV and spreading the use of condom. There are number of the Family Education and Counselling Centres for the victims of prostitution. In 2005-06, 29 Family Counselling centres are operating in West Bengal. Family level counselling and counselling to the girls and women under

difficult circumstances are arranged in administrative level (like SEVA programme by C.I.D. West Bengal) and also by different NGO groups. Still health facility is not satisfactory in red light areas particularly the areas far away from city. Sex workers and their children are more prone to disease due to environmental and social factors. Infrastructural facilities in health sector must be improved and health services should be more widened so that supply should meet the increasing demand. Health cards must be issued to sex workers and their children. One thing should be noted that success of any development schemes of government strongly depend on the level of awareness and participation of general public. Hence, spread of health awareness among sex workers is necessary to improve maternal and child health.

#### **Conflict of Interests**

The author declares that there is no conflict of interests that are directly or indirectly related to this research work.

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Measurement of Health Dimension of Sex-Workers' Children: A Comparative Analysis on the Basis of Northern and Southern Red Light Areas of West Bengal

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