



Research Article

Community Health Profile of Selected Area of Birgunj Metropolitan City, Parsa

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Abstract

Background: Community assessment is the basic foundation for promoting and improving the health of community populations. The objective of this survey is to appraise the health profile of the community and assist in promoting community health.

Methodology: A descriptive cross-sectional survey was carried out from August 14, 2019, to September 21, 2019. The population of the study was residents of ward number 1, Chhapkaiya of Birgunj Metropolitan City, a Slum area of the ward selected purposively, where there were 200 houses and a total population was 1364. Data were collected using the interview technique. Descriptive statistics were used to analyse data.

Results: The majority (79.0%) of respondents threw waste in an open field. Only 19.0% of respondents had used latrines. Most women (80.25%) became mothers at the age of fewer than 20 years. More than half (57.31%) of pregnant women had done an ANC visit up to the fourth time, among them, 90.0% of respondents had delivered in a government hospital 86.0% of the mothers had colostrum feeding practiced as well and 90.12% had done exclusive breastfeeding up to 6 months. Female sterilisation (38%) were more common in the society. Above sixty percent (62.86%) of families, had done diarrheal management in the home of under 5 children.

Conclusion: The health profile of the Chhapkaiya community is satisfactory. All populations used safe water but open field defecation is prevalent and most of the population threw waste in the open field. The majority of the women became mothers below 20 years of age and home delivery is still practiced in this community.

Keywords: Community Assessment, Community Health, Community Profile

Introduction

Nepal is a multi-ethnic country with great socio-cultural diversity across its 29.6 million people, distributed across seven provinces and three ecological regions. The health effects were considered in different eco-belts of Nepal though the magnitude of effects varied marginally or significantly from one region to another and from one health

effect to another. Water pollution is one of the serious public health issues in Nepal (Ministry of Health and Population 2016, 2017): Poor quality of drinking water, low coverage of sanitary facilities, and heavy use of solid biomass fuel for cooking, lack of waste management systems is some of the factors increasing the burden of disease on Nepal's population of both rural and urban areas. A community health profile is a comprehensive compilation

of information about a community which may be a county or a locality within a county (Ministry of Health and Population 2011; New Mexico Department of Health 2006). It is essential in producing evidence-based information for planning, implementation, and evaluation of health programs in certain communities. It is then analysed and reported results of the data collected by a community survey, which describes a combined picture or profile of the population in a certain community (Durch *et al.*, 1998; Gilbertson and Brophy, 2001). It may include such features as the numbers of people and households, the ages and genders of the population, birth and death rates, income and socioeconomic data, social/community needs, access to services (e.g., health, education, and water supply), knowledge, attitudes and beliefs on important health topics affecting the population (Binysh *et al.*, 1988; Hassan *et al.*, 2015). Objective of this survey is to appraise the health profile of community and assist to promote community health.

Methodology

The descriptive cross-sectional survey design was used. The Populations of the study were residents in ward number 1, Chhapkaiya of Birgunj Metropolitan City. The data was collected from August 14, 2019, to September 21, 2019. The slum area of the ward was purposively selected; there were 200 houses covered 1364 population. Bachelor of Nursing Science students were oriented to collect the data and the tool was developed by the Head of Department of Community Health Nursing; it consists of 8 sections

covering all the components of community diagnosis. Formal permission was taken from the Birgunj Metropolitan City office and informed consent was obtained from each respondent before starting the interview. Door to door survey was conducted to collect the data. The subjects were informed that they would be allowed to participate who were willing to study and to refuse at any time if they wished. Demographic information was collected with head of the family, other domain wise information was collected with mother for child rearing and caring and family planning information received from couple. Each day, completeness of data was checked by mentor. The collected data were analyzed and interpreted on the basis of study objectives by using descriptive statistics.

Results

Table 1 shows that 30.13% of respondents were from young adult and minority (3.30%) were infants. More than half (51.0%) were male; likewise, fifty percent (50.59%) were married. Regarding education level of respondents, more than half were literate (59.0%). Among them just more than forty (43.0%) were upto primary level and only 7.0% of respondents had bachelor and above degree.

Table 2 Shows that nearly one fourth (24.04%) of respondent's were housewife followed by labour 13.04% and minority (0.37%) were retired age. Similarly more than one third (32.26%) of respondents were not applicable for occupation, which means age below 18 years.

Table 1: Sociodemographic Characteristics of Respondent's (n=1364)

Characteristics	Categories	Frequency	Percentage
Age	Older	94	6.89
	Middle adult	195	14.30
	Young adult	411	30.13
	Adolescence	209	15.32
	Schooler	171	12.54
	Preschooler	119	8.72
	Toddler	120	8.80
	Infant	45	3.30
Sex	Male	695	51.00
	Female	668	49.00
Marital status	Married	690	50.59
	Unmarried	227	16.64
	Widow	23	1.69
	Widower	1	0.07
	N/A	423	31.01
Education (n=805)	Illiterate	341	25.00
	N/A	218	16.00
	Literate	805	59.00
	Primary level	346	43.00
	Secondary	250	31.00
	Higher Secondary	154	19.00
	Bachelor & above	55	7.00

NA=not applicable for education/marriage according to government rule

Table 2: Respondents' Occupation (n=1364)

Occupation Categories	Frequency	Percentage
Housewife	328	24.04
Labour	178	13.04
Students	131	9.60
Business	111	8.14
Unemployment	41	3.00
Farmer	38	2.79
Government employee	29	2.13
Retired	5	0.37
Others	63	4.62
N/A	440	32.26

Table 3 shows that nearly fifty percent (44%) of the families were living with joint family. All most all (99.0%) of

respondents had used Bhojpuri language. Regarding religion, 77.0% were Hindu and 23% were Islam. Majority (76.54%) were Madhesi ethnicity. Most (74.50%) of the respondents were living in Pucca house.

Table 4 shows that all (100.0%) of respondents had handpump water supply and used handwashing before any procedure, similarly nearly cent percent (99.0%) of them use drinking water directly by handpump without purification. Only 28 % had separate kitchen and one third (19.0%) had used latrine. Majority (79.0%) of respondent thrown waste in open field.

Table 3:Type of Family, Language, Religion, Ethnicity and Types of House of Respondent's (n=200)

Characteristics	Categories	Frequency	Percentage
Types of families	Nuclear	83	41.00
	Joint	87	44.00
	Extended	30	15.00
Family Language	Bhojpuri	197	99.00
	Nepali	3	1.00
Religion	Hindu	154	77.00
	Islam	46	23.00
Ethnicity	Madhesi	153	76.54
	Muslim	45	22.51
	Chhetri	1	0.50
	Janjati	1	0.50
Types of House	Pucca	149	74.50
	Kachha	34	17.00
	Semi-Pucca	17	8.50

Table 4: Sanitation Environment of Selected Houses (n=200)

Characteristics	Frequency	Percentage
Handpump used	200	100.00
Hand washing before any procedure	200	100.00
Used of drinking water directly by handpump without purifying	198	99.00
Separate kitchen	56	28.00
Latrine user	38	19.00
Open field waste disposal	157	79.00
Burning waste disposal	29	58.00
Used Public dustbin for waste disposal	14	7.00

Table 5 depicted that more than half (57.31%) of respondents had completed ANC visit upto fourth visit and minority (6.09%) of them had no ANC visit. The majority (87.0%) of respondents had taken TD vaccine during their pregnancy, like wise same (87.0%) had taken iron and folic acid during their pregnancy. Majority (90.0%) of respondents had delivered in GOV. hospital and few (2.0 %) had delivered in their own home.

Table 6 shows that majority (80.25%) of mother’s age was less than 20 years and most (86.0%) of the mothers had colostrum feeding practiced as well as 90.12% of mother had done exclusive breast feeding practice up to 6 month,

likewise majority (74.07%) of child’s weaning was started at age of six month. Majority (93%) of mothers were not awareness about preparation of Sarbottam Pitho. Majority (93.%) of children under five years were well nourished.

Table 7 shows that all (100.0%) of children had taken B.C.G, majority (92.56%) of children had completed DPT,OPV,PCV, FIPV (I), DPT,OPV, PCV (II) had 89.26% and DPT,OPV, (III) FIPV (I) were completed 83.47% . Majority (71.90%) of children had got Measles, Rubella, PCV (III) and only approx. two forth (40.50%) of children had completed Measles + Rubella (II). More than two forth (57.02%) had taken J.E.

Table 5: Services Received by Mothers during Intranatal Period (n=82)

Characteristics	Categories	Frequency	Percentage
ANC visits	First visit	7	8.54
	Second visit	9	10.98
	Third visit	14	17.07
	Fourth visit	47	57.31
	No visit	5	6.09
TD Immunization	Taken	71	87.00
Iron and Folic Acid	Taken during Pregnancy	71	87.00
Place of delivery (n=49)	Govt. hospital	44	90.00
	Private hospital	4	8.00
	Home	1	2.00

Table 6: Child Rearing Practices of Under 5 Year Children (n=162)

Characteristics	Categories	Frequency	Percentage
Age of Mothers	Less than 20 years	130	80.25
	More than 20years	32	19.75
Colostrum Feeding Practice	Yes	140	86.0
Exclusive Breast Feeding Practice	Yes	146	90.12
Age at Weaning	Before five month	20	12.35
	At six month	120	74.07
	Above six month	22	13.58
Awareness about Preparation of Sarbottam Pitho	Yes	14	7.00
	No	199	93.00
Nutritional Status of children (n=213)	Well nourished	198	93.00
	Mild malnourished	15	7.00

Table 7: Immunization Status of Children (0-23 months) (n=121)

Characteristics	Frequency	Percentage
B.C.G	121	100.00
DPT,OPV,PCV, FIPV (I)	112	92.56
DPT,OPV, PCV (II)	108	89.26
DPT,OPV (III) ,FIPV (I)	101	83.47
Measles, Rubella, PCV (III)	87	71.90
J.E	69	57.02
Measles + Rubella (II)	49	40.50

Table 8, depicted that three forth (73.0%) of eligible couple heard about family planning method and more than half (59.0%) of couple had used modern family planning methods among them more than half (51.38%) of female sterilization were more common. Forty one percent of eligible couple had not used family planning methods due to lack of knowledge (56.23%) regarding family planning methods followed by fear of adverse effects (21.29 %), likewise 8% respondents were single due to partner was abroad.

Table 9 shows that more than half (51.0%) of children suffered from diarrhoea which were age less than 1 year. Management of diarrhea shows, that more than half (62.86%) of families had done diarrheal management in home as well as hospital and minority (8.57%) of families had done in home.

Above table shows that approximately three forth (73.0%) of children suffered from acute respiratory tract infection were below three months age. More than half (68.0%) of children’s families choose hospital management for acute respiratory tract infection of their under-five year children.

Table 8: Awareness of Family Planning by Eligible Couple (n=264)

Characteristics	Frequency	Percentage
Heard of Family Planning Method(F/P)	192	73.00
F/P Methods used by Eligible Couple (n=109)	109	59.00
• Female sterilization	56	51.38
• Male sterilization	1	0.92
• Condom Used	27	24.77
• Depoprovera	24	22.02
• Implant	1	0.92
Not used F/P method	155	41.00
Caused of not used F/P (n=155)		
• Unmet need	27	17.42
• lack of knowledge regarding F/P methods	87	56.13
• Fear of advers effects	33	21.29
• others	8	5.16

Table 9: Suffering from Diarrhoea and ARI during last year and their Management of under five year Children

Characteristics	Categories	Frequency	Percentage
Dairrhoecal Problems (n=35)	Less than 1 year	18	51.00
Age	1 to 3 years	10	29.00
	3 to 5 years	7	20.00
Frequency of diarrhea	1 time	7	20.00
	2 to 4 times	23	66.00
	4 to 6 times	5	14.00
Management of Diarrhea	Home	3	8.57
	Hospital	10	28.57
	Home & Hospital	22	62.86
Suffering from ARI (n=22)			
Age	< 3 months	16	73.00
	4-6 months	5	23.00
	>6 months	1	4.00
Management of ARI	Hospital	15	68.00
	Home + Hospital	7	32.00

Discussion

Community assessment on Birgunj 1, Chhapkaiya was done to find out the community health profile and assist to promote health of the community people. Community health assessment could provide knowledge about the state of the community health and can create an environment for change. In this study, all (100.0%) of respondents had used handpump water and similarly around all (99.0%) of them used drinking water directly from handpump without purify. This study support the National Demographic Health Survey data that almost all households (95%) have access to an improved source of drinking water. (Department of Health services 2018; Ministry of Health and Population 2016) Majority (79.0%) of respondents had throw open field waste disposal. The national report is contradictory with this study findings as sixty-two percent of households have an improved toilet facility that is not shared with other households but in this study only (19.0%) of respondents had availability of latrine. (Ministry of Health and Population 2016). According to national data, thirty-nine percent of households in the mountain zone and 34% of households in Province 2 did not have used water or any cleansing agents for hand washing but in this area all used handwashing before any clean procedure (Ministry of Health and Population 2016). Present study showed that more than half (57.31%) of respondents had completed ANC visit upto fourth visit followed by third visit (17.07%) and minority (6.09%) of them had no ANC visit. Majority (90.0%) of respondents had delivered in GOV. hospital and minority (2.0 %) of them had delivered in their own home, majority (87.0%) of respondents had taken TD vaccine, iron and folic acid during their pregnancy. Provincial report is contradictory with these findings as only 88% received TD vaccines and 36% had institutional deliveries in 2017/2018. (Department of Health services 2018). According to national study, eighty-four percent of women who gave birth in the 5 years before the survey received antenatal care (ANC) from a skilled provider, a 25-percentage- point increase from 2011. Sixty-nine percent of women had at least four antenatal care visits (Ministry of Health and Population 2016). Present study findings, that majority (80.25%) of child bearing mother's age was less than 20 years was similar with national findings as median age at first marriage among women and men has increased by 1 year over the past decade. On average, women marry 4 years earlier than men (17.9 years versus 21.7 years) (Department of Health services 2018).

Current study showed that more than half (59.0%) of eligible couple had used modern family planning methods. Among user, more than half (51.38%) of eligible couple had used female sterilization, followed by condom (24.77%) and minority (0.92%) of eligible couple had used implant (0.92%) but few had done male sterilization (0.92%). Similar findings found in national level data, as

overall, 53% of currently married women use a method of family planning, with 43% using a modern method and 10% using a traditional method. Female sterilization is the most commonly used method (15%), followed by injectables (9%), male sterilization (6%), and the pill (5%) (Ministry of Health and Population 2016).

Limitation

The study is limited only in one community of Birgunj Metropolitan city.

Conclusion

Health profile of Chhapkaiya is satisfactory. All population used handpump water. Most of the population threw waste in open field. Only one third population had used latrine. Open field defecation is common in this area. Majority of women used safe motherhood programme provided by government but home delivery is still practiced in this community. Although, within 30 minutes distance from the central level hospital, this community had still poor health practices. Local health authority should be focus on that problem.

Health Intervention

At the end of community health survey, Health actions were carried out by health care provider to solve the problem based on survey results. About 500 populations were benefited by that health action. The assessment team carried out 40 formal health teaching session and 100 informal teaching session as well as many behaviors change intervention such demonstration of preparing super flour, preparation of oral rehydration solution, hand washing technique and refuse disposal technique. More than 500 community people benefited from eye screening from eye specialist and general health checkup from physicians. Health education on different topic was provided based on survey findings.

Authors' Contribution

All authors contributed equally at all stages of research and manuscript preparation. Final form of manuscript was approved by all authors

Conflict of Interest

The authors declare that there is no conflict of interest with present publication.

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