



Original Research Article

Optimism under the holocaust of covid-19 in Kolkata slum

J Mukhopadhyay^{1,*}

¹Dept. of Community Medicine, Jagannath Gupta Institute of Medical Science & Hospital, Kolkata, West Bengal, India



ARTICLE INFO

Article history:

Received 04-06-2020

Accepted 11-06-2020

Available online 31-07-2020

Keywords:

COVID-19

Pandemic

Optimism

Job loss

ABSTRACT

Background: The crux of catastrophic COVID-19 pandemic has been an unprecedented public health challenge of the recent years. The infection has ravaged the global economy, individual savings as well as human life. Lock-down in many parts of the world, which are adding unequivocally to the global economy, has led to the tumbling of services and merchandise disquieting the world economy viciously. Many have lost jobs and been denied salary suffering the anguish of loss of livelihood with uncertain future. Considering this alarming trend, it was decided to ascertain the extent of certain adversities experienced aside the psyche of the commons to fight the odd in the background of their knowledge and preventive behaviour to avert COVID-19 in a Kolkata slum.

Materials and Methods: 282 adult residents of a slum area in Kolkata were studied during 1st-2nd week of May 2020. Approval from local authority and informed consent of the residents were obtained. A pretested structured questionnaire was introduced including demographic attributes, employment status and knowledge-awareness-practice (KAP) traits of COVID-19 prevention amid their projected mind-frame towards the COVID-19 issues. The data obtained was tabulated and statistically validated.

Result: The adult assemblage had 51% male and 49% female with mean age of 38.04 ± 12.78 and 34.95 ± 10.39 year respectively. 98% were literate and majority (46%) belonged to lower socio-economic group. 68% males worked in different organisations as against 61.6% females prior to lock-down. Around 63% lost job and denied salary after April 20. Awareness of respondents on COVID-19 was noteworthy. More than 93-95% subjects knew about COVID-19 illness besides common preventive measures. More than 95% used masks, followed hand washing and other preventative behaviours. However, use of hand sanitizers (68%) and gloves (36.8%) were inadequate. 93-95% demonstrated positive outlook towards all social issues related to COVID-19 including Govt. actions, directives, future job prospects and possibilities of new job. In spite of many hardships experienced, the community displayed enduring motivation and futuristic mind-set to overcome the crisis undoubtedly.

Conclusion: Honest exploration of truth relating to socio-economic adversities emanating from pandemic would add vital intelligence to COVID-19 preventive strategies.

© 2020 Published by Innovative Publication. This is an open access article under the CC BY-NC license (<https://creativecommons.org/licenses/by-nc/4.0/>)

1. Introduction

Ongoing onslaught of COVID-19 pandemic has been a public health concern all over the world. The contagion has disrupted the world economic system, individual savings as well as human values. Indian Govt. declared lock-down since 25 Mar 20 and that's being followed by the State Govts. consistently resulting in stand-down in public

transports, private/public offices including services of all-purpose petite job-doers.¹ Lock-down in many parts of the world, that are contributing largely to the global economy, has led to the halting of services and products upsetting the world economy brutally.² Many have lost jobs and been denied salary. In the face of such economic stand-off, Govt. provided basic commodities like food provisions for the poor, however that couldn't be relied upon to make much good for all. Considering this distressing trend, it was decided to determine the extent of certain adversities

* Corresponding author.

E-mail address: jmukho@yahoo.co.in (J. Mukhopadhyay).

experienced aside the mind frame of the commons to fight the odd in the background of their knowledge and preventive behaviour to avert COVID-19 in a Kolkata slum.

2. Materials and Methods

The study was conducted among 282 adults in a slum area in south Kolkata during first and second week of May 20. There were 118 families with 402 members altogether, including 291 adults; however only 282 subjects consented to participate. Clearance was taken from local authority for conduct of study among the residents. The colony was visited initially to meet the members in small groups explaining the purpose of the study aside taking informed individual consent. Nominal roll of consenting participants along with their address and mobile no. was prepared. A relevant questionnaire was made after scanning through existing related literature including necessary modifications due local factors and issues.

The questionnaire consisted of two parts; first part had details of personal attributes besides socio-demographic elements with employment status of the subjects and second part contained details of knowledge about personal protective measures against COVID-19 along with preventive practices for the same amid their projected mind-frame towards the COVID-19 issues. Socio-economic status (SES) was determined as per recent scale.³

The questionnaire was introduced to 186 willing members through mobile/electronic media; 96 members, who declined for mobile/e-interactions, were communicated individually in small groups at a time. Any doubt in data collected through e-mode was clarified during personal visit to the colony. Name, address and mobile no. of study subjects were coded maintaining confidentiality, but the record of the same was preserved to avoid duplication protecting validity of data. Standard precautions like use of mask, hand sanitizer and social distancing were followed to avoid COVID-19 during the interactions. The data acquired was assimilated, tabularized and statistically validated to confer inference. Common statistical functions were applied to determine significance of certain variables as appeared pertinent.

3. Results

The colony is located by the southern side of a main road connecting Kolkata further to south 24-parganas district of West Bengal. Houses are generally brickwork with asbestos roof, while few of them are temporary improvised type. Public toilets, municipal water supply point, water hand-pumps and street lights are on hand but not sufficient to make common life at ease. Open drainage system is untidy with disorganized and irregular garbage disposal.

Majority of the subjects (36.9%) belonged to 30-39 years age group as compared to 34.8% from 20-29 years (Table 1).

Sex ratio was 958.3 with 51% male and 49% female. Mean age of male and female members were 38.04 ± 12.78 and 34.95 ± 10.39 respectively. Majority of the individuals (85.8%) were Hindu. Majority of the respondents (34%) were middle school educated followed by 30% educated up to primary standard (Table 2). Most of the subjects (46%) belonged to lower socio-economic group apropos 40% were from lower middle class. Very few (1.77%) were illiterate. 98 of 144 (68%) male members worked in various organisations as compared to 85 (61.6%) working females prior to lock-down (Table 3). Majority (20.2%) worked in retail shop followed by 15.8% each worked in Govt. offices and hospitals. Large no. of males (34) worked in retail shop vis-à-vis many females (13) were employed as ayah in health care agencies. Only 20.2% continued job in spite of lock-down restrictions because of essential service requirements as compared to 17%, who earned salary without execution and many of the latter were employed in Govt. offices (Table 4). 47% had no work and no pay while 15.9% were terminated.

Around 94% subjects knew about transmissibility, infectiousness and virulence of COVID-19 (Table 5). Above 95% were aware about the importance of hand washing and wearing gloves. Around 93-94% appreciated significance of non-indulgence in personal contact greetings (hug/shake), reporting to hospital in case of worrying symptoms and staying back home. About 94% knew about importance of wearing mask, social distancing, use of sanitizer and cough hygiene. 95% respondents used mask and followed cough & sneeze hygiene while around 94% washed hands with soap & water twice daily and maintained social distancing (Table 6). All stated taking regular bath & changing to fresh clothes daily besides not going out of home without necessity. 93.6% avoided hand shaking & hugging, however only 68% used alcohol based hand sanitizer and meagrely 36.8% used gloves at markets & shops.

95% and above opined that COVID-19 crisis is likely to resolve in near future and supported the necessity of lock-down aside several Govt actions that would help control the outbreak (Table 7). 95% and above expressed that social distancing, bar on religious gathering and emphasis on social norms like cough & sneeze hygiene were essential to avert COVID-19 spread. Around 94-95% stated that job prospects will open up & benched workers would be back to work soon. 93.6% supported use of hand sanitizers and non-indulgence in personal contact greetings and anticipated that public transport services would resume soon. Around 94% acknowledged Govt. directives on bar on social/family gathering to contain COVID-19. 93-95% individuals have shown positive outlook towards all the issues and viewpoints related to COVID-19 (Table 8). Positivity ranged between 92-94.8% among middle class, 93.8-95.5% in lower middle and 93.8-96% amongst lowest SES group without any significant difference.

Table 1: Age, sex & religion of adult respondents

Age group in years	Gender		Religion			Total No (Percent)
	Male	Female	Hindu	Muslim	Others	
20-29	51	47	84	14	-	98(34.75)
30-39	54	50	89	14	1	104(36.88)
40-59	34	32	57	7	2	66(23.40)
60 +	5	9	12	1	1	14(4.96)
Total	144 (51.06)	138 (48.93)	242 (85.82)	36 (12.76)	4 (1.42)	282 (100.00)

Figs. in the parenthesis indicate percentages

Table 2: Education & SES status (Before March 20) of the respondents

Educational qualification (n=282)	SES Status (no. & percent)			Total No. (Percent)
	Middle	Lower Middle	Lower	
Graduate & above	36	04	-	40(14.18)
Matriculate	03	48	05	56(19.86)
Middle School(VIII Std)	-	58	38	96(34.04)
Primary	-	03	82	85(30.14)
Illiterate	-	-	5	5(1.77)
Total	39 (13.83)	113 (40.07)	130 (46.10)	282(100.00)

Figs. in the parenthesis indicate percentages

Table 3: Work place, gender & SES status (before Mar 20) of job-holders

Work place (n=183)	SES Status & Gender (no. & percent)						Total No. (Percent)
	Middle		Lower Middle		Lower		
	Male	Female	Male	Female	Male	Female	
Govt office	11	9	4	5	-	-	29(15.85)
Private office	4	6	8	6	-	-	24(13.11)
Retail shop	4	-	8	2	22	1	37(20.22)
Hospital staff	2	3	-	9	4	11	29(15.85)
Security/Ayah	-	-	7	13	2	-	22(12.02)
Hotels/Cafe	-	-	6	-	10	-	16(8.74)
Domestic help	-	-	-	-	-	12	12(6.56)
Others	-	-	2	2	4	6	14(7.65)
Total	21	18	35	37	42	30	183(100.00)

Figs. in the parenthesis indicate percentages

Table 4: Work place and present employment status

Working in (n=183)	Present Employment Status				Total (no. & percentage)
	Job being continued & salary received	Benched but due salary being received	Benched & no salary	Terminated	
Govt office		29	-	-	29(15.85)
Private office	2	-	22	-	24(13.11)
Retail Shop	3	-	34	-	37(20.22)
Hospital	19	-	7	3	29(15.85)
Security/Ayah	13	-	9	-	22(12.02)
Hotels/café	-	-	2	14	16(8.74)
Domestic help	-	2	10	-	12(6.56)
Others	-	-	2	12	14(7.65)
Total	37 (20.22)	31 (16.94)	86 (46.99)	29 (15.85)	183(100.00)

Figs. in parenthesis indicate percentages

Table 5: Awareness on COVID-19

Awareness indices for COVID-19 prevention (n-282)	Awareness vs. gender		Total (No. & percent) p value
	Male (144)	Female (138)	
COVID-19 spreads through cough & sneezing	138 (48.94)	127 (45.03)	265(93.97) Chi-sq 1.8 NS
Droplets of saliva get in air during cough & sneezing & infect other	138 (48.94)	127 (45.03)	265(93.97) Chi-sq 1.8 NS
COVID-19 is highly infectious	139 (49.29)	129 (45.75)	268(95.04) Chi-sq 1.38 NS
Washing hands with soap & water repeatedly prevents COVID-19	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Wearing mask while going out for daily need prevents COVID-19	138 (48.94)	128 (45.39)	266(94.33) Chi-sq 1.25 NS
Social distancing prevents COVID-19	138 (48.94)	129 (45.75)	267(94.68) Chi-sq 0.78 NS
Wearing gloves in markets & shops prevents COVID-19	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Alcohol based sanitizer disinfects hand & prevents COVID-19	138 (48.94)	127 (45.03)	265(93.97) Chi-sq 1.8 NS
Covering mouth & nose while coughing & sneezing prevents spread of COVID-19	137 (48.58)	128 (45.39)	265(93.97) Chi-sq 0.70 NS
Not shaking hand/ hugging friends or relatives prevents COVID-19	136 (48.23)	128 (45.39)	264(93.62) Chi-sq 0.33 NS
Reporting to hospital in case of cough, cold, fever, loose motion & breathing difficulty helps to treat COVID-19	138 (48.94)	128 (45.39)	266(94.33) Chi-sq 1.25 NS
Not going out of home without necessity prevents COVID-19	136 (48.23)	128 (45.39)	264(93.62) Chi-sq 0.33 NS

Table 6: Gender based preventive practices to avert COVID-19

Preventive behaviour (n-282)	Follower (no. & percent)		Total (No. & percent) p value
	Male (144)	Female (138)	
Washing hand with soap & water twice a day at least before meals	137 (48.58)	128 (45.39)	265(93.97) Chi-sq 0.70 NS
Putting on mask while going out for daily need or work	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Social distancing from others in shops, markets & public places	138 (48.94)	128 (45.39)	266(94.33) Chi-sq 1.25 NS
Using gloves in markets & shops	64 (22.69)	40 (14.18)	104(36.88) Chi-sq 7.23 p<0.05
Daily bath & maintaining personal hygiene	144 (51.06)	138 (48.94)	282(100.00)
Using alcohol based sanitizer to disinfect hand	98 (34.75)	94 (33.33)	192(68.09) Chi-sq 0.0001 NS
Following cough & sneeze hygiene	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Not shaking hand or hugging anyone	136 (48.23)	128 (45.39)	264(93.62) Chi-sq 0.33 NS
Not going out of home without genuine need	144 (51.06)	138 (48.94)	282(100.00)

Figs. in the parenthesis indicate percentages

Table 7: Gender based views on social & administrative issues on COVID-19

Personal views of the respondents(n-282)	Respondents (no. & percent)		Total (No. & percent) p value
	Male (144)	Female (138)	
COVID-19 situation will resolve in 2-3 months	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Lock-down is necessary to contain COVID-19	140 (49.64)	130 (46.09)	270(95.74) Chi-sq 1.57 NS
Govt. actions would help control COVID-19	140 (49.64)	130 (46.09)	270(95.74) Chi-sq 1.58 NS
Govt. support in providing free food provision would help poor tide over the crisis	140 (49.64)	130 (46.09)	270(95.74) Chi-sq 1.57 NS
Social distancing in markets & public places is essential to prevent COVID-19	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Ban on religious festival/ gathering is needed to prevent COVID-19	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Emphasis on using alcohol based sanitizer to disinfect hand is helpful	136 (48.23)	128 (45.39)	264(93.62) Chi-sq 0.33 NS
Emphasis on cough & sneeze hygiene is required to prevent COVID-19	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Avoidance of personal contact greetings is crucial to prevent COVID-19	136 (48.23)	128 (45.39)	264(93.62) Chi-sq 0.33 NS
Job prospect will improve slowly in 2-3 months	137 (48.58)	128 (45.39)	265(93.97) Chi-sq 0.70 NS
Benched workers will be given their jobs back	138 (48.94)	130 (46.09)	268(95.04) Chi-sq 0.4 NS
Public transport services would resume soon	136 (48.23)	128 (45.39)	264(93.62) Chi-sq 0.33 NS
Bar on social gathering/ marriage celebration helped to avert COVID-19 last 02 months	137 (48.58)	128 (45.39)	265(93.97) Chi-sq 0.70 NS

Figs. in the parenthesis indicate percentages

4. Discussion

The adult community portrayed a demographic structure, sex ratio and family size analogous to national statistics.⁴ Most of the members (98%) were literate; the last census (2011) recorded the literacy in West Bengal as 77.08%.⁵ Although 68% of adult males and 62% women added to family income coterie in pre-lockdown phase, yet most of them (46%) belonged to lower socio-economic strata; depicts a trying reality where literacy, dual income and compact family couldn't boost up the social status.

Only 20% sustained job in the appalling hours of compulsive lock-down because of service call as compared to 17%, who earned pay and wages without effecting work being Govt. servants. 47% suffered no work and no pay while 15.9% were terminated. Estimated 122 million Indians lost jobs in unorganised sectors in April 20 and 75% of them are small traders and wage labourers.⁶ Out of 404 million employed countrywide in Mar 20, estimated 122 million lost jobs in Apr 20 counting to towering 30% loss. Worry of job loss and livelihood in post-COVID-19 lock-down has been highest in India (86%) as compared to 31% in Britain, 33% in Australia, 41% in US and a lofty 71% in Hong Kong.⁷

Knowledge and awareness about COVID-19 and its prevention were illuminating and gratifying when COVID-19 spate in India has been intensifying and escalating. 93-95% subjects not only knew about transmissibility,

infectivity and modalities of prevention but also were actualising desirable preventive behaviour in most of the counts to tame the trot. It has been documented earlier that washing hands and use of alcohol-based sanitizer (23.3%), hygienic way of coughing/sneezing along with use of mask (19.6%), social distancing (16.1%) and following all preventative measures collectively (40.2%) can prevent COVID-19.⁸ Another recent study annotated that the participants had a moderate level of awareness regarding the mode of spread, symptoms and adequate awareness about the preventive measures. It was possibly due to the government and media emphasizing more on the preventive behaviour.⁹

More than 95% opinionated that COVID-19 catastrophe would ease out in near future and also supported the inevitability of lock-down imposition and several Govt actions to control the outbreak. 93-95% followed all kinds of social restrictions and behavioural reformations as new normal. 94-95% displayed positive standpoint in job prospects, springing of alternative jobs and winning a call back from previous employers. Most of them favoured Govt. directives, actions and accomplishments to contain COVID-19 resplendently. According to fourth leg of a five country opinion poll (US, Britain, Australia, India & Hong Kong), 84% Indians polled as satisfied with the way the Govt. has been dealing with the COVID-19 crisis as against other countries where the popularity of governments have been plunging.⁷ While 84% Indians are happy with Govt.

Table 8: SES based views on social & administrative issues on COVID-19

Personal views of the respondents (n-282)	Respondents (no. & percent)			Total (No. & percent) p value
	Middle Class (39)	Lower Middle (113)	Lower Class (130)	
COVID-19 situation will resolve in 2-3 months	36 (92.31)	108 (95.58)	124 (95.38)	268(95.04) Chi-sq 0.71 NS
Lock-down is necessary to contain COVID-19	36 (92.31)	108 (95.58)	126 (96.92)	270(95.74) Chi-sq 1.58 NS
Govt. actions would help control COVID-19	37 (94.87)	108 (95.58)	125 (96.15)	270(95.74) Chi-sq 0.13 NS
Govt. support in providing free food provision would help poor tide over the crisis	36 (92.31)	108 (95.58)	126 (96.92)	270(95.74) Chi-sq 1.58 NS
Social distancing in markets & public places is essential to prevent COVID-19	36 (92.31)	108 (95.58)	124 (95.38)	268(95.04) Chi-sq 0.71 NS
Ban on religious festival/ gathering is needed to prevent COVID-19	37 (94.87)	107 (94.69)	124 (95.38)	268(95.04) Chi-sq 0.06 NS
Emphasis on using alcohol based sanitizer to disinfect hand is helpful	36 (92.31)	106 (93.81)	122 (93.85)	264(93.62) Chi-sq 0.13 NS
Emphasis on cough & sneeze hygiene is required to prevent COVID-19	36 (92.31)	108 (95.58)	124 (95.38)	268(95.04) Chi-sq 0.71 NS
Avoidance of personal contact greetings is crucial to prevent COVID-19	36 (92.31)	106 (93.81)	122 (93.85)	264(93.62) Chi-sq 0.13 NS
Job prospect will improve slowly in 2-3 months	37 (94.87)	106 (93.81)	122 (93.85)	265(93.97) Chi-sq 0.064 NS
Benched workers will be given their jobs back	37 (94.87)	107 (94.69)	124 (95.38)	268(95.04) Chi-sq 0.06 NS
Public transport services would resume soon	36 (92.31)	106 (93.81)	122 (93.85)	264(93.62) Chi-sq 0.13 NS
Bar on social gathering/ marriage celebration helped to avert COVID-19 last 02 months	36 (92.31)	107 (94.69)	122 (93.85)	265(93.97) Chi-sq 0.29 NS

Figs. in the parenthesis indicate percentages
Percentage calculated column wise

actions; this is as low as 43% in US, 56% in Britain, 53% in Hong Kong and 71% in Australia.

Surprisingly, job loss, economic doldrums, social restrictions and home bound conditions couldn't dampen the spirit of the subjects. It is possible that some of the subjects resorted to fill-in ways of earning livelihood, may have fructified the advantage of working spouse or curtailed sustenance expenses to cope up. It also emerged true that provisioning of free food commodities helped the poor undoubtedly. But we humans are an adaptable and stoic bunch. We generally look for ways to eek the positive out of the situation. We know that at some point days will return to normal, and when it does - we want our lives to have survived and thrived well. This isn't the time to slow down; it's the time to remain positive and find the prospect of opportunity for future.

Epidemics and pandemics are episodic phenomenon generally evanescent in nature. Community face several

challenges during such periods. Lack of awareness often leads to an unconcerned attitude, which may adversely affect the preparedness to meet these challenges. This endeavour attempted to evaluate the awareness, practice of new behavioural norms in the background of adversities experienced correlating with psyche of the people towards the compulsive Govt. policies and directives. The study explicated convincingly the core contention of enduring motivation exhibited by the common that would go a long way to win over the cataclysm undoubtedly.

5. Source of Funding

None.

6. Conflict of Interest

None.

References

1. Corona virus in India: 21 day lockdown begins - Key highlights of PM Modi's speech. Available from: www.businesstoday.in/current/economy-politics/coronavirus-in-india-21-day-lockdown-begins-key-highlights-ofpm-modi-speech/story/399154.html.
2. Ebrahim SH, Ahmed QA, Gozzer E, Schlagenhaut P, Memish ZA. Covid-19 and community mitigation strategies in a pandemic. *BMJ*. 2020;p. 368. doi:10.1136/bmj.m1066.
3. Pandey VK, Aggarwal P, Kakkar R. Modified BG Prasad's Socio-economic Classification - 2018: The need of an update in the present scenario. *Indian J Community Health*. 2018;30(1):82–4.
4. Govt of India (2012), Sample Registration system Statistical Report 2010. Office of the Registrar General and Census Commissioner India. Ministry of Home Affairs. New Delhi. New Delhi.
5. Govt of India (2012), Census 2011, Provisional Population Report. Office of the Registrar General and Census Commissioner India. Ministry of Home Affairs. New Delhi. 2011. New Delhi; 2011.
6. An estimated 12.2 crore Indians lost their jobs during corona virus lock down in April: CMIE, The Hindu. Available from: <https://www.thehindu.com/data/data-over-12-crore-indians-lost-their-jobs-during-the-coronavirus-lockdown-apr/article31520715.ece>.
7. 86% fear job losses as corona virus scare mounts: Survey, Economic Times. Available from: <https://economictimes.indiatimes.com/jobs/86-fear-job-losses-as-coronavirus-scare-mounts-survey/articleshow/75553872.cms?from=mdr>.
8. Pandey S, Gupta A, Bhansali R, Balhara S, Katira P, Fernandes G. Corona Virus (COVID-19) Awareness Assessment - A Survey Study Amongst the Indian Population. *J Clin Med Res*. 2020;2(4):1–10.
9. Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V. Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian J Psychiatry*. 2020;51. doi:10.1016/j.ajp.2020.102083.

Author biography

J Mukhopadhyay Professor

Cite this article: Mukhopadhyay J. Optimism under the holocaust of covid-19 in Kolkata slum. *J Community Health Manag* 2020;7(2):44-50.