Fall 9-29-2021

KNOWLEDGE ANALYSIS OF ANGANWADI WORKERS DURING COVID-19 PANDEMIC SITUATION IN PARALAKHEMUNDI MUNICIPALITY, GOSANI BLOCK,GAJAPATI DISTRICT OF ODISHA: AN ANALYSIS

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Abstract

The present paper is based on a survey method while attempts have been made to assess the knowledge of the Anganwadi workers who are working as frontline workers during the widespread COVID-19 epidemic at Gosani block of Paralakhemundi municipality, Gajapati district. For the study, structured questionnaire was distributed among the total workers i.e. 350 covering 163 Anganwadi worker centres of 16 wards of Paralakhemundi Municipality. The survey was conducted from March to April 2021 at the beginning stage of the second outbreak of COVID-19. The main purpose of the study is to understand the knowledge of Anganwadi workers with regards to the COVID-19 guidelines. In this regard, focus has been made to analyse knowledge on the four general aspects of COVID-19 including stress level of Anganwadi workers because stress management during this pandemic is essential. Thus, analysis has been made on the use of information sources, knowledge on preventive practices, knowledge on maintaining social distance, knowledge on the use of personal protective equipments (PPE) and causes of stress to manage the situation. The study finds that social media like Whatsapp groups, mobile messages are the principal sources of information for them. The workers have clear knowledge on preventive measures such as hand sanitisation, maintenance of social distance and use of personal protective equipments (PPE). The job is stressful for the workers due to the less educated rural people, their carelessness towards the disease, hiding of the symptoms by the individuals and work overload.

Keywords
Paralakhemundi Municipality, Anganwadi workers, COVID-19, Web Portal, Social Media.

INTRODUCTION

COVID-19 was declared as a pandemic by WHO (World Health Organization) on 11th March 2020. The first case in India was reported in Kerela on 27th January 2020 while the first case in Bhubaneswar was detected on 16th March 2020. The global COVID-19 pandemic has presented an enormous challenge to the existing healthcare system in different countries, causing a paradigm shift in healthcare practices. The entirety of India had been under lockdown due to the increase in the number of Coronavirus infected individuals and less

knowledge about the disease. On the basis of caseload, restrictions have been imposed on the social and day to day personal activities of the affected areas. Three zones have been introduced to control the disease namely red zone, orange zone and green zone. All the activities regarding health issues have been regulated by both the government and the private sector. Some of the employees who have been providing necessary social services, like Doctors, Nurses, Paramedical Staff, Anganwadi workers, Anaganwadi supervisors, Asha Karmi, are being engaged to control health issues. They have been recognized as frontline warriors in the healthcare system.

BACK GROUND OF STUDY

The Gajapati district is one of the border districts in Odisha which is nearest to the state of Andhra Pradesh. There are 7 blocks in the district and under Gosani Block the Paralakhemundi Municipality is situated in which there are 16 wards and 166 anganwadi centres where around 350 Anganwadi workers are working and the population is 48980 as per the census of 2011. During COVID, the Gajapati district was declared as red zone due to rampant spread of coronavirus. Recently Gajapati district in Odisha has topped in the ranking of inspirational districts by government think tank NitiAayog in December 2020.

REVIEW OF RELATED LITERATURE

The purpose of this study is to determine the compatibility, awareness and the usage pattern of resources by the anganwadi workers during the COVID-19 pandemic. Review of literature is important to seek understanding regarding the background of the research topic and also to become aware of the recent trends.

Kalichman, et al (2021) have focused on the knowledge of Anganwadi workers regarding the prevention of Coronavirus. In the study, it is also mentioned that besides their usual official responsibility of disseminating key health information regarding nutrition, family planning and immunizations to the women and children, they also track data on the spread of COVID-19.**Comfort, et al (2021)**found that there has been an increased risk of stress, anxiety and depression among the healthcare providers. Several reasons were found to be responsible for stress and anxiety like patient care, worry about becoming infected or infecting family members, work and home related concerns, experiencing burnout and fear of the unknown, concerns about the quality of patient care, providers' changing responsibilities, lack of personal protective equipments (PPEs) and difficulty in coping with co-worker illness and absence. Worries about unemployment and childcare responsibilities were also highlighted. Providers attributed their stress, anxiety and depression to feeling overwhelmed, being unable to focus and lack of sleep.**Islam, et al (2021)** found that social media platforms like Facebook, WhatsApp, Twitter, YouTube and so on has been used to create instantaneous awareness on the precautionary measures of COVID-19. The results also discovered that the educational level of the people has a significant, direct and positive impact on COVID-19 prevention. Therefore, the study suggests more creative use of social media in preventing the spread of the COVID-19 in Bangladesh. **Maude, et al (2021)**studied that the key infection prevention and control measures to limit transmission of COVID-19 include social distancing, hand hygiene, use of facemasks and personal protective equipments. However, these have limited or no impact if not applied correctly because of lack of knowledge, inappropriate attitude or incorrect practices. In order to maximise the impact of infection prevention and control measures on COVID-19 spread, detailed information on the gaps in knowledge, attitudes and practices among the general public and healthcare workers regarding COVID-19 should be assessed. This was used to produce targeted educational videos which addressed these gaps with subsequent improvements on

retesting. **Skarpa and Garoufallou (2021)** revealed that the most preferred and reliable sources of information about the disease were mainly television, electronic press and news websites instead of social media during the COVID-19 pandemic. On the contrary, limited use of social media demonstrates the participants' awareness about the spread of fake news on social media. This observed information seeking behavior might have contributed to individuals' acceptance of the necessary behavioral changes that had led to the great success story in preventing the spread of the disease.**Khataee, et al (2021)**found that to maintain social distancing, the partial lockdown rule has been treated as a major tool to break the spreading chain of COVID-19**. Cot, Cacciapaglia and Sannino(2021)** found that after maintaining the precautionary measures of social distancing, the infection rate of Coronavirus has been reduced within two to five weeks by 20-40%. **Hills and Eraso (2021)** found that non-adherence to all social distancing rules had a stronger association with vulnerability to COVID-19. It is recommended that people living in high-risk environments, such as those living in houses of multiple occupancy, should be specially supported when asked to stay at home and public health messaging should emphasise on shared responsibility and public consciousness.**Gong, Zhang and Sun (2021)** stated that social distancing has a major role in breaking the spreading of Coronavirus but it was difficult to maintain by everyone in general which was one of the reasons for mental stress of healthcare providers. **Pandey, et al (2021)** studied and concluded that female doctors were found to be under more stress than male doctors but the major reason for stress was not direct patient care. As a whole, the situation of the pandemic was stressful enough to deteriorate the confidence of healthcare workers.**Perera, et al (2021**) stated that the major reasons for the distress of healthcare professionals were fear of being infected,fear of spreading it among family members, stigmatization, poor self-confidence, poor occupational safety and heavy workload. These need to be considered in future psychological support services designed for the healthcare professionals in unprecedented outbreaks like COVID-19.**Tumram (2020)** concluded that the use of appropriate personal protective equipment is essential for healthcare workers when dealing with patients who have tested positive or are suspected of having COVID-19 but at the same time we have to give emphasis on the efficacy and applicability of personal cooling garments to avoid the heat of PPE.**Li, et al (2020)** found that anxiety and depression exists among the medical staff during the COVID-19 pandemic and psychological intervention should be undertaken in time.**Das, et al (2020)**found that different communication medias like televisions, radios, newspapers have been used to update knowledge on the prevention of COVID-19 and knowledge was significantly poor among aged people, women, less educated people and those on low incomes. An awareness program on COVID-19 is very important to prevent the spread of the virus. Effective communication intervention with increasing treatment facilities is essential for the prevention and control of COVID-19. Government and development agencies should prioritize the COVID-19 response program with regular healthcare services.

STATEMENT OF PROBLEM
Coronavirus disease 2019 (COVID-19) is a rapidly emerging global issue which creates constraints not only on the health sector but also on all other sectors of the society. Across the country, there is an increasing trend of active cases. In this junction, the healthcare workers have the major role in raising awareness through public health education. So, the present study has been undertaken to elucidate the facts of awareness on different aspects of the disease among the common people at the concerned village. In view of growth of the disease, it is necessary that Anganwadi workers must be properly informed to tackle the situation as they act as the mediators to convince people about the dreadful consequences of the disease. Today the disease COVID-19 has spread rapidly & has had a huge impact on the access to

the right type of information to fight against this dreadful contagious disease. These days, the people are dependent on electronic and print media for information. In view of the important aspects of information gathering habits and use, the following questions are framed:

The present study is intended to find out the answer of the following questions.
- What kind of knowledge does the Anganwadi workers have on different kind of sources of information?
- How much knowledge the Anganwadi workers have on preventive practices for sanitization purpose?
- How much knowledge the Anganwadi workers have on maintaining social distance?
- What kind of informal knowledge does the Anganwadi workers have regarding use of PPE?
- What is the reasons of stress among the Anganwadi workers?

OBJECTIVES OF THE STUDY

In the present pandemic situation, it was found that people infected with COVID-19 are waiting desperately outside hospitals and dispensaries as life slowly ebbs with each passing gasp of breath. At this critical junction, the role of Anganwadi workers has prominence to reduce the number of affected cases by providing adequate information to the local people. So in order to gather information, the following objectives are formulated on the basis of primary questions which are set to analyse the information seeking habits of Anganwadi workers to reduce the cases of sufferings.

The purpose of the present study is to find the answers to the above stated questions.

- To find out the frequency of use of different sources of information used by the Anganwadi workers for gathering information.
- To analyze the knowledge on adoption of different preventive practices on sanitization by the Anganwadi workers.
- To investigate the adoption of knowledge on maintaining social distancing.
- To understand the use, knowledge on the use pattern of PPE.
- To highlight the cause of stress among anganwadi workers.

SCOPE OF THE STUDY

Corona virus disease-2019 is an acute respiratory disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which has caused an explosive catastrophic pandemic that has affected people of all the sections of the society. It has resulted in severe loss to the economy and human life as well. In order to prevent and slow down the transmission of infection and to educated the people, many guidelines have been circulated by the different Government agencies to protect oneself such as washing hands, maintaining social distance, taking proper nutritional food, etc. In this regard, the present study has been undertaken to

explore the existing knowledge of the Anganwadi workers who are declared as the frontline workers in this fight against the pandemic. The study is being undertaken to identify the information seeking behaviour of the Anganwadi workers of Gosani block of Paralakhemundi municipality of Gajapati district of Odisha. A survey was conducted on 166 Anganwadi Centres of 16 wards where only 350 female anganwadi workers are assigned with the duty as frontline workers during COVID-19 pandemic to create awareness on COVID-19 at the concerned wards. To know their knowledge on COVID-19 pandemic, the present study has been undertaken. The study is limited to the Gosani block and also to the Anganwadi workers only.

Table 1: Describes the number of wards and Anganwadi workers .

Sl. No	Name of wards of 166 Anganwadi centres	No of workers
1	Ward No.-1	36
2	Ward No.-2	23
3	Ward No.-3	23
4	Ward No.-4	35
5	Ward No.-5	31
6	Ward No.-6	19
7	Ward No.-7	21
8	Ward No.-8	12
9	Ward No.-9	11
10	Ward No.-10	13
11	Ward No.-11	25
12	Ward No.-12	22
13	Ward No.-13	19
14	Ward No.-14	20
15	Ward No.-15	19
16	Ward No.-16	21
Total	**16**	**350**

There are 16 number of wards consisting 166 Anganwadi centres in which 350 numbers of Anganwadi workers are working in Paralakhemundi Municipalty.

METHODOLOGY OF THE STUDY

The present study is based on quantitative research method by covering the total population of the study. Census method has been followed as the size of the population is small i.e. 350. In order to ascertain the size of the sample, Slovin's formula has been adopted to verify the adequacy of the response.

Slovin'sFormulae :

$$n = \frac{N}{(1 + Ne^2)} = \frac{350}{1 + 350(0.05)^2} = 186.67 \cong 187$$

Where n=minimum expected sample size,

N=number of finite sample

e=margin of error which is 5% here

Here, 350 questionnaires have been distributed among all the Anganwadi workers and 203 responded which is more than the minimum desired number of 187. It is a cross sectional study as data has been collected from the population at a specific point of time i.e. March and April, 2021.

ANALYSIS OF THE DATA

Descriptive statistics has been applied to describe the collected data in a meaningful way to highlight the patterns of the information seeking behaviours of the Anganwadi workers in the following ways:

- Questionnaires distributed and responded.
- Demographic study of the Anganwadi workers.
- Types of information sources used on COVID-19.
- Knowledge on preventive practices during the duty of COVID-19.
- Knowledge on social distance during COVID-19 practices.
- Knowledge on pattern of use of personal protective equipments (PPE).
- Probable reasons for stress on Anganwadi workers while on their duty of rendering COVID-19 services.

Table-2: Questionnaire Distributed and Responded

Questionnaire distributed	Questionnaire responded	% of response
350	203	58.00

Out of the total questionnaires distributed among the whole population of 350, only 203 responded which amounts to 58% only. However, the response is more than the desired sample size of 187. As a result, the analysis shall produce accurate results within 5% margin of error.

DEMOGRAPHIC DESCRIPTION

For the present study, 350 questionnaires were distributed and 203 Anganwadi workers responded to the questionnaire. The demographic information of 203 respondents covers age group, marital status and qualification. These three factors have been analyzed in the below mentioned table 3.

Table 3: Demographic Information On Anganwadi Workers

N=203

		Age Group			Total
18-24	25-34	35-44	45-54	55-60	
30(14.78%)	31(15.27%)	61(30.05%)	60(29.56%)	20(9.84%)	203(100%)
		Marital Status			
Married	Single	Separated	Divorced	Widowed	
81(39.90%)	63(31.03%)	20(9.85%)	10(4.92%)	20(9.85%)	203(100%)
		Academic Qualification			
Below Matric	Matric Pass	+2 Pass	Graduate	Other	
91(44.83%)	52(25.62%)	30(14.78%)	20(9.85%)	10(4.92%)	203(100%)

From table 3, it is found that the Anganwadi workers are mostly within the age group of 35-44 years (30.05%) followed by 45-54 years (29.56%) and least being 55-60 years (9.84%). As per their marital status, 39.90% are married while 31.03% are single, 9.85% are separated, 4.92% are divorced and another 9.85% are widowed. With regards to their educational qualifications, majority of them (44.83%) are below matric, followed by 25.62% of matric pass, while the percentage of +2 pass and graduate Anganwadi workers are 14.78% and 9.85% respectively.

KNOWLEDGE ON USE OF INFORMATION SOURCES

This part of questionnaire consists of 10 numbers of probable information sources to be rated on a five point Likert's scale where 1 is for very rarely, 2 for rarely, 3 for occasionally, 4 for less frequently and 5 for very frequently. The data so collected have been compiled, analyzed as presented in table 4.

Table 4: **Frequency on use of Covid-19 information sources N=203**

Sources of Information	Very Rarely(1)	Rarely(2)	Occasionally(3)	Less frequently(4)	Very frequently(5)	Mean Score	% Score	Rank
By watching local TV channels	17	33	45	51	57	3.48	69.7	5
By collecting official circular	22	25	39	48	69	3.58	71.5	3
By reading news paper	35	31	41	47	49	3.22	64.3	7
Collecting news from the local volunteers	31	32	39	46	55	3.52	70.4	4
By listening radio	51	44	39	41	28	2.76	55.2	**10**
Collecting information from the WhatsApp group	8	19	26	47	103	4.07	81.5	**1**
Collecting information from the colleagues	30	33	40	34	66	3.36	67.2	6
From online sources like Facebook,Web Portal etc.	36	37	38	39	53	3.18	63.5	8
Collecting information from audio announcement.	49	46	40	35	33	2.79	55.8	9
Collecting information from mobile messages	15	20	30	35	100	3.87	77.3	2
Average						**3.38±0.398**	**67.7±8.0**	

From table 4, it is found that the types of information sources used by the Anganwadi workers with regards to the frequency of use in descending orders are collecting information from the WhatsApp group (81.5%), collecting information from mobile message (77.3%), by collecting official circular (71.5%), collecting news from local volunteers (70.4%), watching local TV channels (69.7%), collecting information from the colleagues (67.2%), reading news papers (64.3%), from on-line sources like facebook, web portal etc (63.5%), collecting information from audio announcement (55.8%) and by listening radio (55.2%). On the average the information sources are being used to the extent of 67.7% with a standard deviation 8% which suggests frequent use of sources by the Anganwadi workers which is a good indicator.

KNOWLEDGE ON PREVENTIVE COVID-19 PRACTICES

This part of the questionnaire contains six numbers of preventive practices which are to be adopted as a preventive measure of COVID-19. The respondents have been asked to rate on a 5-point Likert's scale to indicate how much they are knowledgeable on preventive practices of COVID-19. Here for assessment each question has been rated with five point scale of measurement i.e., 1 - Absolutely no clear knowledge, 2 - Little knowledge, 3 - Neither more nor less knowledge, 4 - Clear knowledge, 5 - Absolutely clear knowledge. The respondents have clarified each question as per their knowledge on use of preventive practices. The data so obtained have been analysed as contained in table 4.

Table 5: Knowledge on preventive practices during duty of COVID-19 by the Anganwadi Workers N=203

Preventive Practices	Very Rarely(1)	Rarely(2)	Occasionally(3)	Less frequently (4)	Very frequently (5)	Mean Score	% Score	Rank
I had knowledge on bad effects of hand shaking among colleagues	9	19	42	59	74	3.84	76.7	2
Knowledge on sanitization of hand after touching any materials	18	25	24	37	99	3.86	77.1	1
Knowledge on washing hands at least 20 times at a day in interval	34	31	42	45	51	3.24	64.7	3

Knowledge on touching eyes, ears other materials without washing hands.	28	42	48	44	41	3.14	62.8	4
Knowledge on using on face masks while going out	30	45	51	38	39	3.05	61.1	5
Knowledge on washing face at intervals in a day	44	40	37	39	43	2.99	59.7	6
Average						**3.53±0.36**	**67.1±7.2**	

From the analysis in table 5, it is found that the percentage score against the six number of practices vary between 59.7% to 77.1% indicating their knowledge all the practices. Out of six questions, the knowledge on use of the preventing practices adopted by the Anganwadiworkers in descending orders are hand sanitisation (77.1%), no hand shake with colleagues (76.7%), washing hands at least 20times a day (64.7%), not touching ears and eyes after touching a material (62.8%), use of face masks (61.1%) and washing face at regular intervals (59.7%). On overall assessment, the average percentage of Anganwadi workers with knowledge of all identified preventive practices is 67.1% with a standard deviatin of 7.2% which is good but needs to be enhanced more for better preventive practices.

KNOWLEDGE ON MAINTAINING SOCIAL DISTANCE

This part of the questionnaire has been designed with six numbers of aspects on maintenance of social distance norms being rated on a 5-point scale in order to ascertain the knowledge and practices of the Anganwadi workers. Here the same types of query has been done regarding maintenance of social distance at home and working place. The rating scale also varies from 1 to 5, where, 1 carries absolutely no clear knowledge on maintenance of social distance and 5 carries absolutely clear knowledge. The data, obtained, are compiled and analysed as shown in table 5. Date obtained are compiled and analysed as shown in table.5.

Table 6: Knowledge on maintain social distance during Covid-19 practices by the anganwadi workers N=203

Provisions to maintain social distance	Absolutely no clear knowledge (1)	Little Knowledge(2)	Neither more nor little knowledge(3)	Clear Knowledge(4)	Absolutely clear knowledge (5)	Mean Score	% Score	Rank
I had knowledge to maintain 6ft distance between co-workers	39	46	51	34	33	2.88	57.6	**6**
I had knowledge to maintain 3ft distance among family members	34	37	36	56	40	3.15	63.1	5
I had Knowledge on to maintain 6ft distance between my boss while talking	28	39	46	49	41	3.18	63.5	4
I had Knowledge to maintain 6ft distance while visiting temple	11	18	41	72	61	3.76	75.2	**1**
I had Knowledge to maintain minimum distance while shopping in a market area.	34	39	37	39	54	3.20	63.9	3
Knowledge to maintain avoid social gathering (Marriage and funeral ceremony etc)	35	31	41	45	51	3.23	64.5	2
Average						**3.23±0.262**	**69.7±5.2**	

From the table 6 on the knowledge of maintaining social distance, the percentage score varies between 75.2% and 57.6%. The provisions to maintain social distance used by Anganwadi

workers in descending order are I had knowledge to maintain 6ft distance while visiting temple (75.2%), knowledge to maintain avoid social gathering (marriage and funeral ceremony, etc.) (64.5%), I had knowledge to maintain minimum distance while shopping in a market area (63.9%), I had knowledge on to maintain 6ft distance between my boss while talking (63.5%), I had knowledge to maintain 3ft distance among family members (63.1%) and I had knowledge to maintain 6ft distance between co-workers (57.6%). The average of the scores came out as 3.23±0.262 which corresponds to 69.7% with a standard deviation of 5.2%. This implies that all the social distancing norms of COVID-19 are well known to 74.95 to 64.5% of the Anganwadi worker which is good but needs to be improved considering the risk factor involved with the disease.

KNOWLEDGE ON PATTERN OF USE OF PERSONAL PROTECTIVE EQUIPMENTS (PPE)

This questionnaire part consists of five numbers of aspects on use of personal protective equipment. The knowledge on the proper use has been evaluated through a 5-point rating scale.The five point scale has been used to rate the knowledge on use of different PPE as a distinctive measure to control the spread of disease where, '1' stands for 'absolutely no knowledge' and '5' for 'absolutely clear knowledge'. The data so obtained have been compiled, analysed as contained in table 7.

Table 7:Knowledge on pattern of use of personal protective equipments (PPE) by the anganwadi workers N=203

Precautions to protect personal equipments(%).	Absolutely no clear knowledge(1)	Little Knowledge(2)	Neither more nor little knowledge(3)	Clear Knowledge(4)	Absolutely clear knowledge(5)	Mean Score	% Score	Rank
I had knowledge on wearing masks inside duty room and local place	18	20	31	35	99	3.87	77.4	1
I had knowledge on covering both nose and mouth with mask	35	38	54	39	37	3.03	60.5	4
I had knowledge on wearing face shields while talking with any person	11	19	39	72	62	3.76	75.3	2
I had knowledge on cleanliness of reusable mask every day	40	44	51	35	33	2.89	57.7	5
I had knowledge on disposing of PPE in a specified coloured dustbin as per guidelines	32	39	55	39	38	3.06	61.2	3

Average						3.32±0.41	66.4±8.2	

From the table 7, it is found that maximum number of Anganwadi workers have the awareness to use face masks in duty room and local place, using face shields while talking with any person where the percentages are 77.4% and 75.3%. The awareness of disposing of PPE in a specified coloured dustbin as specified, covering both face and nose with mask and cleanliness of reusable mask everyday are found of moderate order i.e., 61.2%, 60.5% and 57.7% respectively which need to be enhanced. The average percentage comes as 66.4% with a standard deviation of 8.2%. It signifies appropriate amount of knowledge on handling PPE to prevent COVID-19 spread in the concerned community.

PSYCHOLOGICAL STRESS DURING COVID-19

The corona virus pandemic presents a lot of stress and anxiety to large populations in general and to healthcare professionals which also includes Anganwadi workers. In order to analyse the cause of Anganwadi workers stress among Anganwadi workers, 18 questions were asked by keeping the view of every aspects of society such as lack of knowledge, lack of food, behaviour of people, lack of personal protective equipment, and difficulty in coping with co-worker illness etc. Thus, the probable factors which causes stress for anganwadi workers have been analysed in the table 8.

Table 8: Probable reasons for stress on duty

Probable reasons for stress on duty	Not causing stress(1)	Causing mild stress(2)	Causing moderate stress(3)	Causing stress(4)	Causing high stress(5)	N=203	
						Mean Score	% Score
Less Qualified People in the community to understand Covid 19 guidelines	9	19	42	59	74	3.84	76.7
Not understanding the spread of Corona via the local people.	16	21	31	35	100	3.90	77.9
Less hygine knowledge among local people.	35	49	42	46	31	2.95	58.9

Less nutritional food for developing immunity system.	35	36	47	39	46	3.12	62.5
Behaviour of young people towards the social distance	35	38	54	39	37	3.03	60.5
Fearless among the old people	8	22	41	71	61	3.76	75.3
Lack of prevention support from government	35	51	42	46	29	2.92	58.3
Due to migration of local people	11	20	39	72	61	3.75	75.0
Hide the symptoms due to social evil.	35	41	51	46	30	2.98	59.5
Due to lack of transportation for distance	35	47	36	44	41	3.04	60.9
Due to workload of other administrative paper works.	10	21	41	78	53	3.70	74.1
Due to language problem	35	40	52	45	31	2.99	59.7
Due to lack of updated knowledge and training on particular task to convey the people.	49	42	35	46	31	2.84	56.8
Due to lack of maintain hand hygiene during duty	35	38	54	44	32	3.00	60.0
Due to lack of maintain social distancing during duty	34	37	55	45	32	3.02	60.4
Due to lack of wear Personal Protective Equipment(PPE) during duty	40	31	56	44	32	2.99	59.7

Due to lack of maintain Fomites of personal items after duty	31	39	51	48	34	3.07	61.5
Due to lack of maintain proper Lifestyle like adequate sleep, updating oneself on corona virus disease etc.	35	36	49	43	40	3.08	61.7
Average						**3.22±0.36**	**64.4±7.2**

From the analysis contained in table 8, it is found that the primary cause of stress among the Anganwadi workers are due to the less qualified community to understand the Covid-19 guidelines (76.7%), not understanding the spread of corona virus through the local people (77.9%), fearlessness among the old people (75.3%) and workload of other administrative paper works (74.1%). The secondary cause of stress are less hygiene knowledge among the community (58.9%), consumption of less nutritional food for developing immunity system (62.5%), young people not obeying social distancing (60.5%), lack of prevention system from government (58.3%), hiding the symptoms due to social evil (59.5%), lack of transportation for distance (60.9%), language problem (59.7%), lack of updated knowledge and training to convey people (56.8%), lack of maintaining hand hygiene during duty (60.0%), lack of maintaining social distance during duty (60.4%), lack of use of PPE during duty (59.7%), lack of fomite to sanitise personal items after the duty (61.5%) and lack of maintaining proper lifestyle like adequate sleep and updating one self on the disease (61.7%). The average stress level of the Anganwadi workers in their job has been estimated at 64.4% with a standard deviation of 7.2%. All the factors contributing to the stress level of employees are due to the external factors which are beyond their personal control. In such high stress conditions, persistent performance for longer period from an Anganwadi workers is rarely expected. Hence the authority at the District Administration must look into the matter so that the ground level workers shall be relieved of some level of stress resulting in better management of COVID-19 pandemic in rural areas.

The average values of information sources used (table 3), knowledge on preventive practices (table 4), maintain social distance (table 5), use of PPE (table 6) and psychological stress level (table 7) has been shown as bar diagram as in figure 1.
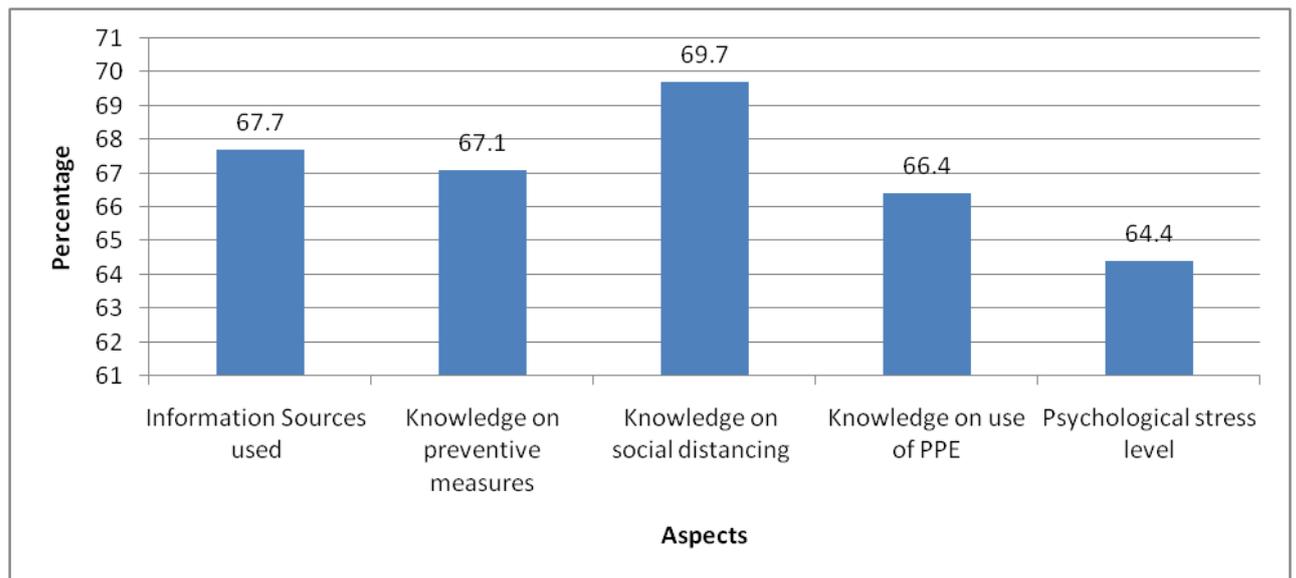
Figure 1: Extent of information sources used, knowledge on preventive measures, social distancing, use of PPE and psychological stress level of Anganwadi workers on COVID-19 duty.

Findings

Objective i: To find out the frequency of use of different sources of information by the Anganwadi workers for gathering information.

Findings i(a): The main sources of information are the social media platforms such as whatsApp groups (81.5%) and mobile messages (77.3%) followed by watching local television channels (69.7%), collecting information from colleagues (67.2%), reading newspapers (64.3%), on-line sources like facebook, web portal etc. (63.5%), from audio announcement (55.8%) and listening radio (55.2%).

i(b): The average frequency of use of different information sources are to the extent of 67.7% with a standard deviation of 8%.

Objective ii: To analyse the knowledge on adoption of different preventive practices on sanitisation by Anganwadi workers.

Findings ii(a): The knowledge of workers as evidenced from their practices on different preventive measures on COVID-19 in descending orders are hand sanitisation (77.1%), no handshake with colleagues (76.7%), washing hands at least 20 times a day (64.7%), not touching ears and eyes after touching a material (62.8%), use of face mask (61.1%) and washing face at regular interval (59.7%).

ii(b): The average percentage of Anganwadi workers with knowledge of COVID-19 preventive practices come out as 67.1±7.2%.

Objective iii: To investigate the adoption of knowledge on maintaining social distancing.

Findings iii: The clear knowledge on social distancing as a COVID-19 preventive practice are with 69.7% of the workers with a standard deviation of 8.2%.

Objective iv: To understand the use of knowledge on the use pattern of PPE.

Findings iv(a): The awareness regarding use of face masks in duty room and local place is the highest (77.4%) followed by using face shields while talking with any person (75..3%), the disposal of PPE in specified dustbin (61.2%), covering both face and nose with mask (60.5%) and cleaning reusable mask everyday (57.7%).

iv(b): The average percentages of workers with clear knowledge of the use pattern of PPE came out as 60.4±8.2%.

Objective V: To highlight the cause of stress among the Anganwadi workers.

Finding V(a): The primary cause of stress among the workers are the less qualified community to understand the Covid-19 guidelines (76.7%), not understanding the spread of Coronavirus through the local people (77.9%), fearlessness among the old people (75.3%) and the workload of other administrative paper works (74.1%). Consumption of less nutritional food to develop immunity system in the community (62.5%), lack of maintaining proper lifestyle like adequate sleep, updating oneself on corona virus disease (61.7%), lack of use of fomites on personal items after duty (61.5%), lack of transportation for distance (60.9%), hiding the symptoms due to social evil (59.5%), behaviour of young people towards the social distancing (60.5%), lack of social distancing during duty (60.4%), lack of maintaining hand hygiene during duty (60%), lack of PPE during duty (59.7%), language problem (59.7%) and lack of updated knowledge and training on particular tasks to convey the people (56.8%) are the secondary causes of stress for the workers.

V(b): The average stress level of Anganwadi workers in their job has been estimated at 64.4% with a standard deviation of 7.2%.

DISCUSSION AND CONCLUSION

In the study, the social media platforms like WhatsApp groups and mobile messages are found as important sources of information for the Anganwadi workers on COVID-19. Official circulars, news from local volunteers and colleagues, T.V., newspapers also remain as important and reliable sources for them. Similar observations have been found by **Islam, et al (2021)** on use of social media. **Comfort, et al (2021)**stressed the reliability of information from television, press and news websites over the social media. However, these sources also remain as the main sources of informtion for the workers as found out from the study. The preventive measures and practices tend to control and limit the transmission of the virus, provided the workers have good knowledge on the practices and in appropriate attitudes as emphasized by **Maude, et al. (2021).**In the study, the knowledge of the workers on preventive practices are assessed as good which could be enhanced for effective control of

the disease. The workers have good knowledge for maintaining social distancing norms as an important practice for preventing the spread of the disease. **Khataee, et al.(2021)**,**Cot, Cacciapaglia and Sannino(2021),Hills and Eraso(2021)** all stressed the importance of social distancing norms for control of the disease. The Anganwadi workers being the field level service providers are not only stressed due to the risk involved with the pandemic, but are additionally stressed because of the nature of their job attributed by external factors.

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