

Comparative Study on COVID-19 among Adolescent of Rural and Urban Areas

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Abstract: Background of study: Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. COVID 19 causes pneumonia & the risk of mortality increases due to co-morbidities (conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer) are more likely to develop serious illness. Worldwide all age groups were affected by COVID-19. Different preventive measures were followed like hand washing, wear masks, social distancing. The discovery of vaccine has reduced the mortality rate & has been very effective against COVID-19. The knowledge & attitude is very important to fight against COVID-19 & prevent such pandemic in future. Anyone can get sick with COVID-19 and become seriously ill or die at any age. **Statement:** A comparative study to assess the knowledge and attitude regarding COVID19 among adolescent in selected schools of urban & rural areas of Jalandhar, Punjab. **Material & methods:** The comparative research design was adopted to accomplish the objectives of the study to assess the knowledge & attitude regarding COVID-19 among adolescent of urban & rural areas. The study was conducted on 50 samples each of urban and rural community areas to assess the knowledge & attitude regarding COVID-19 among adolescent. Non-probability convenient sampling technique is used to select the sample by using inclusion & exclusion criteria & self-structured questionnaire was used. Prior to data collection, written permission was obtained. Analysis & interpretation of data was done with the objectives by using descriptive & inferential statistics like standard error, standard deviation & Karl Pearson's coefficient of correlation formula.

Result: In the study 16(32%) of adolescent had good knowledge regarding COVID-19, 34(68%) had average knowledge & the minimum 0(0%) adolescent had poor knowledge regarding COVID-19 in urban area whereas 1(2%) of adolescent had good knowledge regarding COVID-19, 36 (76%) had average knowledge and 13(26%) adolescent had poor knowledge regarding COVID-19 in rural area. No significant association was found between the knowledge of adolescent girls of urban areas with their social demographic variables i.e. age, level of qualification and monthly income in Rs. However highly significant association was found between the knowledge of adolescent girls of urban areas with their socio-demographic variables i.e. religion(12.14**), area of residence(25.52***) and source of information(14.62**). Whereas attitude regarding COVID19 result showed that the study 40(80%) of adolescent had positive attitude regarding COVID-19, 10 (10%) had negative attitude

regarding COVID-19 in rural area whereas 45(90%) of adolescent had positive attitude regarding COVID-19, 5(10%) had negative attitude regarding COVID-19 in urban area. No significant relation of attitude of adolescent girls of rural and urban areas with socio-demographic variables i.e. source of information and religion. However, highly significant association was found with age (58.8**), level of qualification (10.5*), area of residence (25.2***) and monthly income in Rs. (8.25*). **Conclusion:** The study concluded that adolescent of urban areas have better knowledge & attitude regarding COVID-19 as compared to that of rural areas. A self-instructional module was prepared to enhance the knowledge regarding COVID19 among adolescent.

Keywords: Comparative study, COVID-19, Adolescent, knowledge, attitude, urban and rural area.

1. Introduction

Corona virus disease 2019 (COVID -19) is defined as an illness caused by novel corona virus, now called severe acute respiratory syndrome corona virus 2. Covid 19 is an emerging respiratory infection that was first discovered in December 2019, in Wuhan city, Hubei Province, China. SARS-CoV-2 belongs to larger family of Ribonucleic Acid (RNA) viruses, leading to infections, from common cold, to more serious diseases, such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS CoV). The main symptoms of COVID 19 have been identified as fever, dry cough, fatigue, myalgia, shortness of breath and dyspnea. Viral infections are primarily diagnosed by molecular tests and immunoassays. The molecular test detects the nucleic acid from the virus and helps in diagnosis of active infection immunoassay, and it detects the presence of either virus specific antigen or antibody produced. Novel corona virus requires different immunodiagnostic test as recommended for research purpose and surveillance. The primers are used to amplify tiny fragments of viral nucleic acid and further detected by RTPCR technology. This test is highly sensitive and considered golden standard front line test for COVID -19 testing. COVID -19 is presented with asymptomatic, mild, or severe pneumonia like symptoms. COVID -19 patients with diabetes, Chronic Obstructive Pulmonary Disease (COPD), cardiovascular disease, hypertension, malignancies, HIV, and other

commodities could develop a life threatening situation . SARS -CoV- 2 utilizes ACE -2 receptors found at the surface of the host cells to get inside the cells. Certain commodities are associated with strong ACE-2 receptors expression and higher release of pro protein convertase that enhances the viral entry into the host cells [3].

COVID 19 has affected our daily life and have far reaching consequences. The health care industries were overloaded with patients. The requirements for PPE kits were also high .Health care faced challenges in diagnosis, quarantine and treatment of suspected or confirmed cases. Economically there was a decline worldwide in the revenue growth. The social life was also impacted like lockdown in schools, disruption of religious celebration and cancellation of various sports tournaments. So overall it has impacted the physical and mental health of people4.

Worldwide the common preventive measures taken were hand hygiene , wearing masks, social distancing norms and use. The discovery of vaccines has been very effective in reducing the burden of COVID 19. Safe and effective vaccines are an important tool to protect people against COVID 19 . WHO recommended that initial vaccination should prioritize groups at highest risks of exposure to infection in each country, including health worker , older persons and those with other health issues5. Once the vaccines become more available, countries can expand to vaccinate other priority groups and the general population [5].

2. Need for Study

As per WHO reports World wide cases of COVID 19 were 259,502,031 and deaths were 5,183,003 on 26 November 2021.In India 34,572,523 cases were reported and reported deaths were 33,998,278 .As per Business Standard report infection tally in Punjab is 16,591 and death toll is 65,430 till 26 November 2021. Case fatality rate were 9.3% in Italy, 6.2% in Spain, 4.2% in France and 2.3% in China. The outbreak of COVID 19 has captured the world's attention because it has the potential to cause severe political, social & economic upheaval; therefore, it calls for great international concerns & collaborative efforts of all countries to prevent the serious spread of COVID 19. Lockdown measures were perceived as necessary to curb the spread of virus as rapid human-to-human transmission occurred and much about the virus remained unknown. Due to obscurity of this novel virus, there has been a lot of confusion and misunderstanding about the virus itself, how it can spread and necessary precaution that should be taken to prevent infection [6]

The population of rural areas are at greater risk of COVID19 complications and mortality. The virus is particularly dangerous for older individual & rural areas generally have higher portion of older residents. Rural residents also have a higher prevalence of preexisting conditions and commodities (e.g. diabetes, heart disease, obesity & smoking) that put them at greater risk of COVID19 complications. So it is important to knowledge and attitude of adolescents (school students) so that they can participate to handle the pandemic by guiding the family members. The need for study becomes more important

because 44% population is still not vaccinated and adolescent population is in majority in India. Youth is the face of the country, also reopening of schools make it necessary to assess there knowledge regarding COVID19. Infection with COVID19 in early age may cause many health and mental issues. India ranked at 42 out of 62 countries Bloomberg COVID resilience ranking, hence it focuses on the need to assess knowledge of adolescent [7]

3. Statement of Problem

A comparative study to assess the knowledge and attitude regarding COVID19 among adolescent in selected schools of urban & rural areas of Jalandhar, Punjab.

1) Objectives

1. To assess the knowledge regarding COVID-19 among adolescent in selected government schools of urban and rural areas of Jalandhar.
2. To assess the attitude regarding COVID-19 among adolescent in selected government schools of urban and rural areas of Jalandhar.
3. To compare the knowledge and attitude regarding COVID-19 among adolescent of government schools of urban and rural areas of Jalandhar.
4. To find out the association between knowledge and attitude regarding COVID-19 with selected demographic variables (Age, level of qualification, religion, area of residence, monthly family income in Rs. and source of information) among adolescent of urban and rural areas of Jalandhar.

4. Methodology

It deals with the methodology undertaken to assess the knowledge, practice and attitude of COVID19 in selected urban and rural community area of Jalandhar, Punjab. A qualitative design is used to assess the knowledge, practice and attitude of school going adolescent of selected urban and rural community area, Jalandhar. A comparative research designs used to assess the knowledge and attitude of adolescent of selected school of urban and rural community areas.The present study is conducting at the selected urban and rural community areas of Jalandhar, Punjab.

1. Urban research setting- Cantt board senior secondary school, Jalandhar Cantt.
2. Rural research setting- Government senior secondary school (Sofi pind)

The target population for this study is school going adolescents of age between 13-16 years.The adolescent school going girls of age group 13 to 16 years in respective research setting of urban and rural area.Total sample size is 100 adolescents. 50 each of selected schools of urban and rural community areas. Non-probability convenient sampling technique is used to select the sample by using inclusion and exclusion criteria.

5. Criteria for Selection of the Sample

1. Inclusion criteria: Adolescent of selected schools of

urban and rural community that present at the time of data collection & were willing to participate in study.

2. Exclusion criteria: Adolescent who are physically and mentally ill? Adolescent that are not falling in the age group of 13-16 years.

1) Variables

- *Dependent variable*- Knowledge and attitude of school going adolescents.
- *Independent variables*- Age, level of qualification, religion, area of residence, monthly family income in Rs and source of information regarding COVID19.

6. Development and Description of Tool

Structured questionnaire consist of questions to assess knowledge and attitude regarding COVID19 among school going adolescents of rural and urban community areas.

- Section A = Socio-demographic variables such as age, level of qualification, religion, area of residence, monthly income in Rs, source of information.
- Section B = It consist of self-structured knowledge questionnaire which include 21 items to assess the knowledge of school going adolescent girls regarding COVID19.

1) Scoring process

Knowledge questionnaire consist of 21 items.

Score 1 is given for correct response.

Score 0 is given for incorrect response.

The score ranges from minimal of “score 0” and maximum of “score 21”.

2) Score Interpretation

The knowledge level is divided into 3 categories based on knowledge questionnaires, and accordingly the score was allotted.

Table 1

Knowledge criteria	Score
Poor Knowledge	≤7
Average Knowledge	8-14
Good Knowledge	15-21

3) Section C

It consist of self-structured attitude scale (Likert scale) to assess the attitude of school going adolescent regarding COVID19.

4) Scoring interpretation

Likert scale for assessing attitude of school going adolescent regarding COVID19.

Table2

Attitude criteria	Score
Positive attitude	25-50
Negative attitude	Below 25

5) Validity of tool

Validity refers to the degree to which an instrument measures and what it is supposed to measure. Content validity refers to the degree to which the item in an instrument adequately represents the universe of content. Tool will be validated by 6 experts.

6) Reliability of tool

Reliability refers to the accuracy or inaccuracy rate in the measurement device. The reliability of the tool is computed by

using split half technique: Karl Pearson and Spearman Brown’s formula. The reliability value obtained by using Karl Pearson formula is 1 for knowledge and 1 for attitude, hence the tool is found to be reliable.

7. Ethical Consideration

A prior written permission was taken from principal of:

1. Army College of Nursing, Jalandhar Cantt.
2. Government Senior Secondary School, SofiPind.
3. Cantt board Girls Senior Secondary School, Jalandhar Cantt.

The code of ethics was followed throughout the study and the students who gave consent for study were taken. The data obtained was analyzed in terms of objectives of the study using descriptive and inferential statistics .Frequency and Percentage distribution was used to analyze the demographic variables which included ; Age, level of qualification, religion, area of residence, monthly family income in Rs and source of information of COVID19.Median was used to determine knowledge and attitude of school going adolescent regarding COVID 19.Chi Square test was used to analyses the association of knowledge with socio-demographic variables.

8. Analysis and Interpretation of Data

1) Objectives

1. To assess the knowledge regarding COVID-19 among adolescent in selected government schools of urban and rural areas of Jalandhar.
2. To assess the attitude regarding COVID-19 among adolescent in selected government schools of urban and rural areas of Jalandhar.
3. To compare the knowledge and attitude regarding COVID-19among adolescent of government schools of urban and rural areas of Jalandhar.
4. To find out the association between knowledge and attitude regarding COVID-19 with selected demographic variables (Age, level of qualification, religion, area of residence, monthly family income in Rs. and source of information) among adolescent of urban and rural areas of Jalandhar.

9. Section A: (Socio-Demographic Profile)

The above table represents the socio-demographic variables of urban and rural area:

Age group of 13to16yrs had majority of participant from 14yrs (38%)in urban area whereas rural area had majority from 13yrs (40%)respectively. Level of qualification showed that out of 7th,8th,9th,10thclass the maximum participation in study was from 8thand 10th class(26%)each in urban whereas 10th class(28%)in rural area .Religion showed that the study had maximum Hindu population (84%)and (78%)in urban and rural areas respectively. Area of residence, urban and rural areas had equal participation in the study had 50 samples from each .Monthly income in Rs. represented that majority of participants had family income of 5000-10000 which was (70%)and (50%)in urban and rural area .The main source of

information about COVID19 was gained from school, family and friends(40%)each in urban area and (58%)from school in rural area respectively.

1) Demographic profile

Table 3
Socio-demographic profile of urban and rural

		Urban area		Rural area	
1	Age	Frequency	%	Frequency	%
	13 year	11	22%	20	40%
	14year	19	38%	13	26%
	15year	10	20%	10	20%
	16year	10	20%	7	14%
2	Level of qualification				
	7 th class	12	24%	12	24%
	8 th class	13	26%	13	26%
	9 th class	12	24%	11	22%
	10 th class	13	26%	14	28%
3	Religion				
	Hindu	42	84%	39	78%
	Sikh	3	6%	9	18%
	Christan	5	10%	2	4%
	Muslim	0	0%	0	0%
4	Areas of residence				
	Rural	0	0%	50	100%
	Urban	50	100%	0	0%
5	Monthly family income in rs.				
	5000-10000	35	70%	25	50%
	10001-15000	7	14%	17	34%
	15001-20000	6	12%	6	12%
	Above 20000	2	4%	2	4%
6	Source of information				
	School	20	40%	29	58%
	Family/ friends	20	40%	5	10%
	Mass media	7	14%	15	30%
	Health professional	3	6%	1	2%

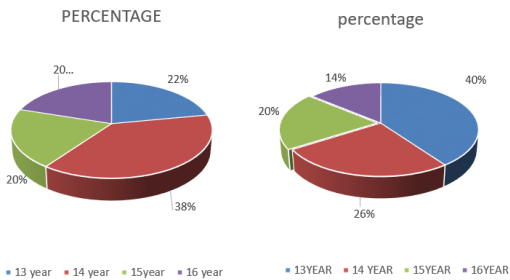


Fig. 1. Depicts the demographic profile of age of adolescent of : urban area (1.1) and rural area(1.2)

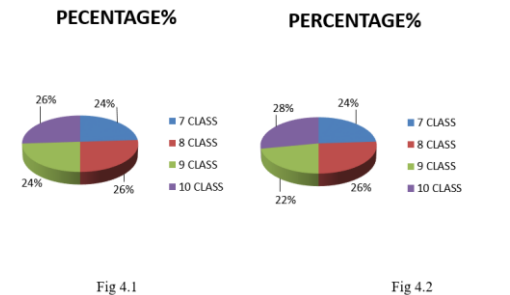


Fig. 2. Depicts the demographic profile of level of qualification of adolescent of: urban area (2.1) and rural area(2.2)

PERCENTAGE%

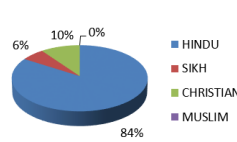


Fig 5.1

PERCENTAGE%

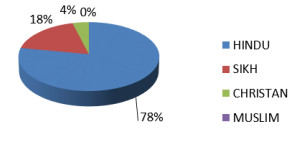
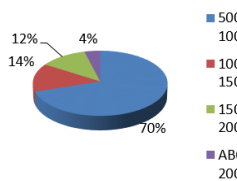


Fig 5.2

Fig. 5. Depicts the demographic profile of religion of adolescent of: urban area (fig5.1) and rural area (fig 5.2).

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PERCENTAGE%

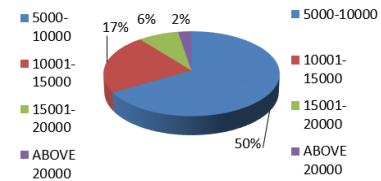
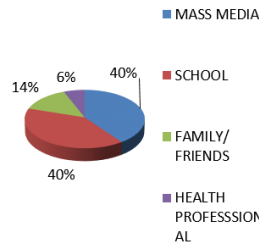


Fig. 3. Depicts the demographic profile of monthly family income of adolescent of urban area (3.1) and rural area (3.2).

PERCENTAGE%



PERCENTAGE%

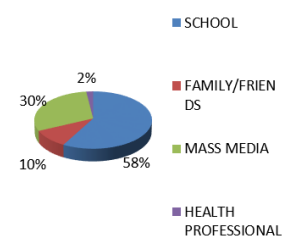


Fig. 4. Depicts the demographic profile of source of information of adolescent of urban area (fig4.1) and rural area (fig4.2).

10. Section B

1) Objectives

To assess the knowledge regarding COVID -19 among adolescent in selected government schools of urban and rural areas of Jalandhar.

Table 4
Assessment of level of knowledge of adolescent of rural areas of Jalandhar.

Knowledge	score	Frequency	Percentage
Poor	0-7	0	0%
Average	8-14	34	68%
Good	15-21	16	32%

The above table represents that maximum i.e. 34(68%) of

adolescent had average knowledge regarding COVID-19,16 (32%) had good knowledge, 0(0%) had poor.

Table 5
Assessment of attitude of urban adolescent on COVID -19

Grade	Score	Frequency	Percentage
Positive	26-50	45	90%
negative	10-25	5	10%

The above table represent that maximum i.e, 90% of urban adolescent had positive attitude regarding covid-19 and 10% had negative attitude regarding COVID -19.

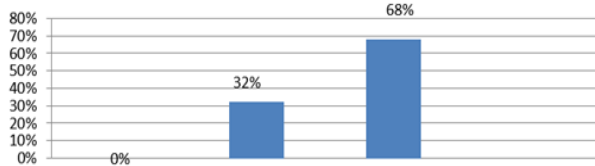


Fig. 5a. Assessment of level of knowledge of urban adolescent (8.1) on COVID19.

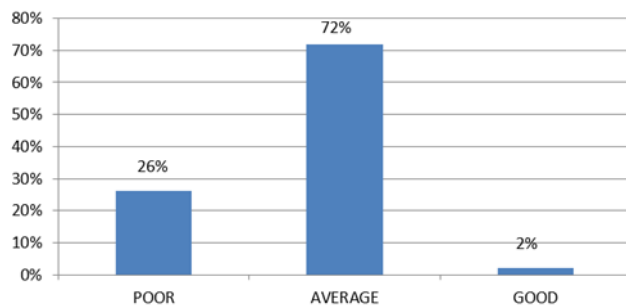


Fig. 5b. Assessment of level of knowledge of rural adolescent (8.2) on COVID -19.

11. Section C

1) Objectives

To assess the attitude regarding COVID 19 among adolescent of government schools of urban and rural areas of Jalandhar.

Table 6
Assessment of attitude of urban adolescent on COVID -19.

Grade	Score	Frequency	Percentage
Positive	26-50	45	90%
negative	10-25	5	10%

The above table represent that maximum i.e, 90% of urban adolescent had positive attitude regarding covid-19 and 10% had negative attitude regarding COVID -19.

Table 7
Assessment of attitude of rural adolescent regarding COVID-19.

Grade	Score	Frequency	Percentage
Positive	26-50	40	80%
Negative	1-25	10	20%

The above table represent that maximum i.e, 40(80%) of rural adolescent had positive attitude and 10(20%) had negative attitude regarding COVID-19

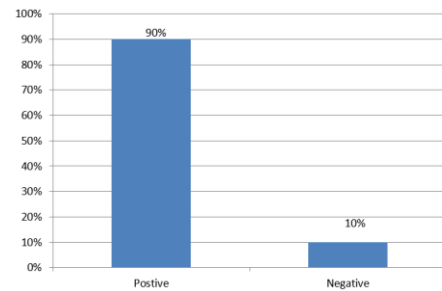


Fig. 6a. Assessment of attitude of urban adolescent (9.1) of COVID-19

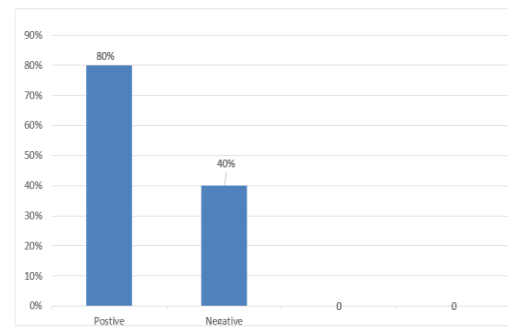


Fig. 6b. Assessment of attitude of rural adolescent (9.2) of rural area.

12. Comparison of Urban and Rural Studies

Objective: To compare the knowledge and attitude regarding COVID-19 among adolescent of government schools of urban and rural area of Jalandhar.

Table 8
Comparison of the level of knowledge regarding COVID-19 between urban and rural adolescent.

Score	Urban		rural	
	Frequency	Mean Percentage	Frequency	Mean Percentage
Good	16	32%	01	2%
Average	34	68%	13	26%
Poor	0	0%	36	72%

The above data reveals that 16 urban adolescent had good knowledge compared to 01 rural adolescent, 34 urban adolescent had average knowledge compared to 36 rural adolescent, 0 urban adolescent had poor knowledge compared to 13 rural adolescent regarding COVID-19.

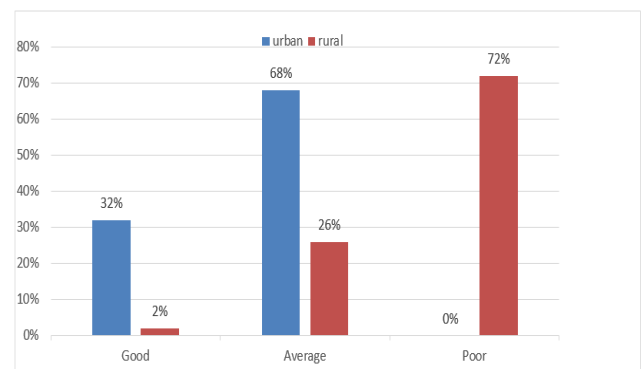


Fig. 7a. Comparison of level of knowledge regarding COVID-19 between urban and rural adolescent.

Table 9
Comparison of attitude regarding COVID-19 between urban & rural adolescent.

Criteria	Urban	Rural
Positive attitude	45	40
Negative attitude	5	10

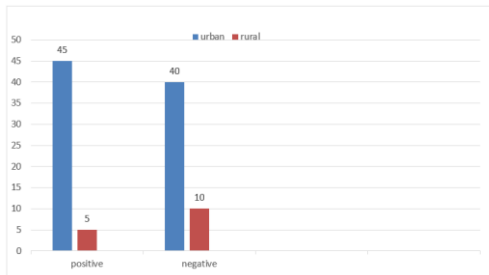


Fig. 7b. Comparison of attitude regarding COVID-19 between urban and rural adolescent

13. Association of Knowledge and Attitude with Socio-Demographic Variables

1) Objectives

To find out the association between knowledge and attitude regarding COVID-19 with selected demographic variables (such as age, level of qualification, religion, area of residence, monthly income in Rs. and source of information).

2) Interpretation of knowledge and attitude association data

Table 10

Mark(*)representation	Level of significance
*Sig	P<0.05
**Sig	P<0.01
***Sig	P<0.001

3) Association of knowledge with demographic variables:

Maximum score=21 minimum score=0 median =11.

No significant association was found between the knowledge of adolescent girls of urban areas with their social demographic variables i.e. age, level of qualification and monthly income in Rs. However highly significant association was found between the knowledge of adolescent girls of urban areas with their socio-demographic variables i.e. religion (12.14**), area of residence (25.52***) and source of information(14.62**) as described in table no. 5 below.

4) Association of attitude with demographic variables

Maximum score=50 minimum score=10 median =40

No significant relation of attitude of adolescent girls of rural and urban areas with socio-demographic variables i.e. source of information and religion. However, highly significant association was found with age (58.8**), level of qualification(10.5*), area of residence(25.2***) and monthly income in Rs. (8.25*) as described in table no.6 below.

14. Discussion

1) Major findings

1. To assess the knowledge regarding COVID 19 among adolescent in selected government schools of urban and rural areas of Jalandhar. The present study reveals

that maximum i.e. 36(72%) of rural adolescent had average knowledge and the minimum 1(2%) had good knowledge, 13(26%) had poor knowledge regarding COVID 19. The study among urban adolescent revealed that 34(68%) of adolescent girl had average knowledge and the minimum 16(32%) had good knowledge, 0(0%) had poor knowledge regarding COVID 19.

2. Rampal shilpi, acharaya rajib (2020)- conducted a comparative study among men and women of Uttar Pradesh and Bihar. A total 1,666 young adults were taken as subject where it was found that 70% women had high awareness of disease symptoms and preventive behaviors as compared to men 24.
3. To assess the attitude regarding COVID 19 among adolescent in selected government schools of urban and rural areas of Jalandhar. The present study reveal that maximum i.e. 40(80%) of rural adolescent had positive attitude and 10(20%) had negative attitude regarding COVID 19 while maximum i.e. 45(90%) of urban adolescent had positive attitude and 5(10%) had negative attitude regarding COVID 19.

Hamzah R Mohammad, Azlan A Arina, Mohamad Emma(2021) a cross-sectional online survey of 4850 Malaysian residents was conducted in 2020 to determine the knowledge level and attitude towards COVID-19. The survey instrument was a modified questionnaire on COVID-19, the correct rate of knowledge questionnaire was 80.5%. 83.1% participants held positive attitude toward successful control of COVID-19 and handling crisis25.

To compare the knowledge and attitude regarding COVID19 between rural and urban adolescent girls.

Comparison of knowledge- The present study reveals that 16(32%) urban adolescent girls had good knowledge compared to 1(2%) rural adolescent girl, 34(68%) urban adolescent girls had average knowledge compared to 36(72%) rural adolescent girls, and 0 (0%) urban adolescent girls had poor knowledge compared to 13 (26%) rural adolescent girls regarding COVID19. Comparison of attitude- The present study reveal that 45(90%) urban adolescent girls had positive attitude compared to 40(80%) of rural adolescent girls and 5(10%) urban adolescent girls had negative attitude compared to 10(20%) of rural adolescent girls regarding COVID 19.

4. Khalaf Inaam, Omayyah Nassar (2020)- conducted a cross sectional study on Jordian adolescents to explore the knowledge and attitude towards COVID-19. Total sample was 1054 Jordian adolescents aged 12-18, overall Jordian adolescent showed a good base of

Table 11
Association of knowledge with variables

S.no.	Variables	Score At Median And Above	Score Below The Median	Total	X ²	D(f)	Level Of Significance
1.	Age						
	13year	17	14	31			
	14year	22	10	52			
	15year	11	09	17			
	16year	7	10	17			
	Total	57	43	100	3.55	3	Ns
2	Level of qualification						
	7 th class	16	8	24			
	8 th class	15	11	26			
	9 th class	14	9	23			
	10 th class	12	15	27			
	Total	57	43	100	2.70	2	Ns
3	Religion						
	Hindu	47	34	81			
	Sikh	5	7	12			
	Christian	6	1	7			
	Muslim	0	0	0			
	Total	58	42	100	12.14****	3	S**(p<0.01)
4	Area of residence						
	Rural	16	34	50			
	Urban	41	9	50			
	Total	57	43	100	25.52***	1	S***(p<0.001)
5	Monthly income in rs.						
	5000-10000	40	20	60			
	10001-15000	12	12	24			
	15001-20000	4	8	12			
	Above 20000	3	1	4			
	Total	59	41	100	5.91	3	Ns
6	Source of information						
	School	23	26	49			
	Family/friends	22	3	25			
	Mass media	9	13	22			
	Health Professional	3	1	4			
	Total	57	43	100	14.62**	3	S**(p<0.001)

knowledge regarding COVID-19(regardless of their demographic characteristics), they tended to hold positive attitude towards the countries curfew and other protective measures. There was a relatively small percentage of poor knowledge and had negative attitude related to COVID -1926.

- To find out the association between knowledge and attitude regarding COVID19 with selected demographic variables among adolescent of urban and rural areas of Jalandhar.

2) Association of knowledge with demographic variables:

No significant association was found between the knowledge of adolescent girls with their socio demographic variables i.e. age, class and socio economic status however significant association was found between the knowledge of adolescent girls of urban areas with their socio demographic variables i.e. religion, area of residence and source of information.

3) Association of attitude with demographic variables

Significant association was found between area,

socioeconomic status and class whereas no significant association is found with other socio demographic variables i.e, age, source of information and religion.

Ashraf I, Khasaweneh, Muhammad Ramadan(2020)- conducted a cross sectional descriptive study among 1404 medical students of school of medicine Jordan University of science a technology, IRBID, Jordan in 2020. Analysis identified that the majority of medical students relied on online resources of obtain information including the use of social media platforms. 38% of students use social media to gain knowledge, 45.6% use social media occasionally27.

Gupta Anil, Kaushik Manish(2020)- conducted a cross-sectional study on the role of public awareness in preventing the spread of covid-19 outbreak, an extensive survey among 21 406 adult participants of various sections of Indian society with different age groups between 18 and 80 years to introspect the level of public awareness. There is a need to extent the knowledge base among individual to enhance their participation in the prevention28.

Table 12
Attitude association with demographic variables

Sr no.	Variables	Score At median & above	Score Below The Median	Total	X ²	D(f)	Level Of Significance
1.	Age						
	13year	17	14	31	58.8***	3	S(P<0.001)
	14year	9	10	19			
	15year	10	23	33			
	16Year	05	12	17			
	Total	41	59	100			
2	Level of qualification						
	7 th class	10	14	24	10.5*	3	S(P<0.05)
	8 th class	17	9	26			
	9 th class	6	17	23			
	10 th class	8	19	27			
	Total	41	59	100			
3	Religion						
	Hindu	35	47	82	1.53	3	NS
	Sikh	3	9	12			
	Christian	3	3	6			
	Muslim	0	0	0			
	Total	41	59	100			
4	Area of residence						
	Rural	20	30	50	25.2***	1	S(P<0.001)
	Urban	21	29	50			
	Total	41	59	100			
5	Monthly income in rs.						
	5000-10000	21	28	49	8.25*	3	S(P<0.05)
	10001-15000	15	20	35			
	15001-20000	4	8	12			
	Above 20000	1	3	4			
	Total	41	59	100			
6	Source of information						
	School	21	28	49	0.82	3	NS
	Family/Friends	4	8	12			
	Mass Media	15	20	35			
	Health Professional	1	3	4			
	Total	41	59	100			

15. Recommendations

By keeping in view, the findings following recommendations were made;

1. A similar study can be replicated in large sample using other design.
2. Same study can be conducted in different setting and population.

16. Limitations

1. The response time exceeds up to 30 minutes for each sample which was initially planned for 20minutes.
2. The researcher was able to collect more number of overseas literature than the Indian literature.
3. All the participants were girls.

17. Conclusion

This paper presented an overview of Comparative Study on Covid 19 among Adolescent of Rural and Urban Area.

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