

**Original Article**

A Pre- Experimental Study to Assess the Effectiveness of Webinar on Impact of COVID-19 on Mental Health in terms of Knowledge Among Nursing Students

Authors

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Abstract

Knowledge regarding impact of COVID-19 on mental health plays a vital role for nursing students in their clinical practice. Objectives: The objectives of the study is to assess the effectiveness of webinar, on impact of COVID-19 on mental health in terms of knowledge among nursing students and to find out the association between knowledge and selected demographic variables regarding impact of COVID-19 on mental health. Methodology: Pre-experimental research design was used to collect the data from nursing students. A total of 100 students were enrolled into the study by using total enumerative sampling technique. Self- structured knowledge questionnaire was used to assess the knowledge regarding impact of COVID-19 on mental health among nursing students. Result: The result of the study depicts that majority of nursing students (96%) had good knowledge, (4%) fair, none of them were under average or poor knowledge regarding impact of COVID-19 on mental health. Chi test was used to find out the association between the score level and selected demographic variables and significance was there with age of students ($p=0.118$), Educational qualification (0.791), previous knowledge (0.963).

Keywords: *assess, effectiveness, webinar, knowledge, covid-19, mental health, nursing students.*

Introduction

Virus, infective agent of small size and simple composition that can multiply only in living cells of animals, plants and bacteria. Coronavirus disease 2019 is an infectious disease caused by severe acute respiratory syndrome coronavirus.⁽¹⁾ Corona virus are a large family of viruses that are known to cause illness ranging from common cold to more severe disease such as MERS and SARS. WHO announced "COVID-19" as the name of this new disease on 11 February 2020, following guidelines previously developed with the World Organization for Animal Health (OIE) and the

Food and Agriculture Organization of the United Nations (FAO).

WHO and ICTV were in communication about the naming of both the virus and the disease.⁽²⁾

ORIGIN OF COVID-19 (Wuhan, Hubei, China.

1 December 2019 1st case reported in WHO office China.

31st December 2019 many people reported in China.

1st January 2020 seafood market in Wuhan city was closed.

7th January 2020 china authority identify it.

9th January 2020 first death in china Wuhan.

13th January 2020 1st case reported in Thailand.

30th January 2020 India reported 1st case in Kerala.
 5th February 2020 WHO admits “ No known effective treatment of COVID-19”
 11th February 2020 WHO declared COVID-19 (corona virus-2019)
 11th March 2020 officially declared of COVID -19 as “GLOBAL PANDEMIC”⁽⁵⁾

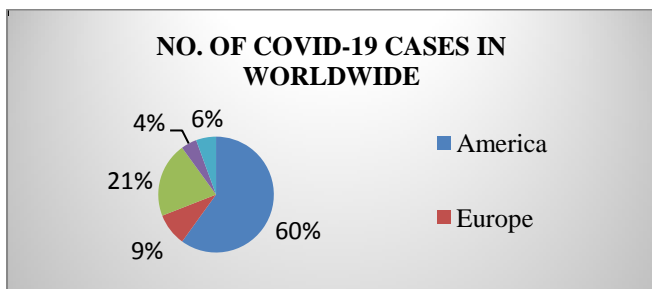


Fig. 1. Pie chart shows the cases of COVID-19 in world-wide during the July 2020

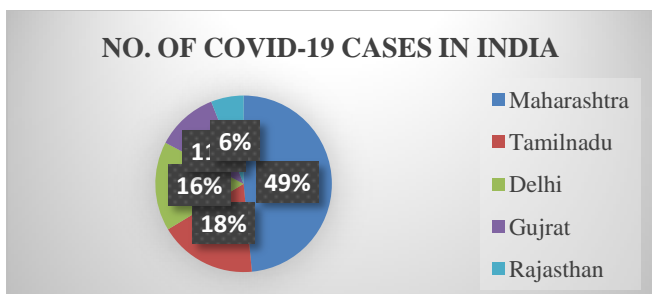


Fig 2 Pie chart shows the cases of COVID-19 in India during the July 2020.

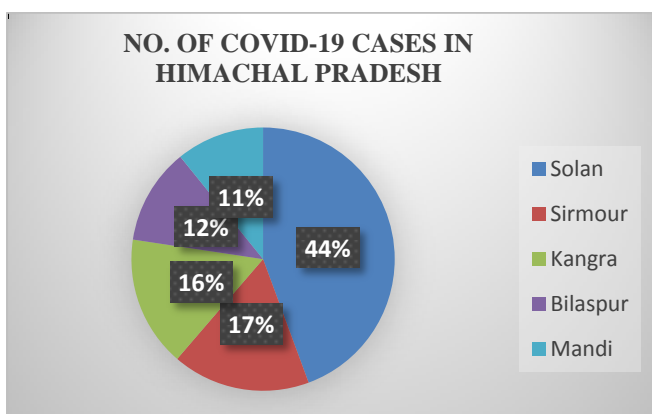


Fig 3 Pie chart shows the cases of COVID-19 in Himachal Pradesh during the July 2020

The word webinar is a blend of ‘web’ and ‘seminar’. A webinar is an event held virtually which is attended exclusively by an online audience. The modern world in which all individuals are able to rapidly travel and

communicate has been rarely forced to the current social isolation and restrictions which are linked to feelings of frustration and uncertainty. ²Social distancing and important lockdown restrictions have been carried out first in China and later in most European countries where.⁽³⁾

Objectives

To assess the knowledge of nursing students and effectiveness of webinar regarding impact of COVID-19 on mental health.

Hypothesis

H₁: significant difference in pre-test and posttest knowledge score among nursing students
H₂ significant association between the knowledge score regarding impact of COVID-19 on mental health

Assumption

Webinar enhance knowledge of nursing students regarding impact of COVID-19

Delimitation

COVID-19 sign and symptoms, risk factors, pathophysiology, impact of COVID-19 on mental health, reaction of people to stress and crisis and prevention of impact of COVID-19 on mental health.

Methodology

“Quantitative Research Approach” was considered to be most appropriate to evaluate the effectiveness of webinar on impact of COVID-19 on mental health and research design pre-experimental research design was The setting of study was conducted in selected nursing colleges of distt. Mandi (H.P) In the present study population consists of nursing students. Total Enumerative Sampling was used and the sample size for the study comprised of 100 nursing students the study included nursing students who were registered for the webinar and the study excluded those nursing students who participated in the same study. Data collection tools and

techniques used Demographic variables and self-structured knowledge questionnaires and technique was Google form

Description of Tools Section 1: The Performa for demographic variables sample was developed to gather personal data about nursing students that is Age, educational qualification, state, religion, previous knowledge regarding impact of COVID-19 on mental health. **Section 2:** Self structured questionnaire used to assess the level of knowledge of nursing students regarding impact of COVID-19 on mental health. Each correct response awarded a score of '1' and for every incorrect response a score of '0'.

Validation and Reliability: Content validity of the developed tools was obtained by submitting the tools to 9 experts. The item content validity of the structured knowledge questionnaire ranged from 0.6 to 0.9 and scale content validity index was 0.77. reliability co-efficient for the structured knowledge questionnaire was calculated by Kuder Richardson-20 (KR-20). The reliability coefficient of structured knowledge questionnaire was found to be 0.781. Ethical approval was obtained from the ethical committee of selected nursing college of distt, Mandi to conduct the final study.

forwarded to the students in morning around 9:15am. After that the pre-test link was forwarded to the students at 10:45 am exactly 15 minutes before the online session by researcher

Pre-test link:
<https://forms.gle/vmskJYRELqWLNgcP8>

The students were instructed to submit the pre-test by 11: 00 am. At 11:00am Google meet join link was forwarded to the nursing student via Gmail by joining the webinar session.

Join link: <https://meet.google.com/nak-wgfg-nvr>
Students were informed about the couple of important points for joining the meeting.

- 1) To mute yourself after joining the meeting.
- 2) Ask question through the feature available in the App.

Pilot Study

Pilot study was conducted in August 2020 to assess the feasibility of the study and to decide the statistical analysis practicability of research. The pilot study was conducted on 10 nursing students.

Procedure of Data Collection:

Day 1: Nursing students were instructed to fill the registration form for joining the webinar. A registration link forwarded by researcher to the students via Gmail on dated 4.08.2020 and 2 days were given for registration.

Registration Link:

<https://docs.google.com/forms/d/e/1FAIpQLSfbJcCGZZtLvLF8VdIGVnASqbiCfYgI1Tlly4TsZIceXwpuA/alreadyresponded?vc=0&c=0&w=1>

The students were informed about webinar hosted by us to show the impact of COVID-19 on mental health. 1 hour long session was held via Google meet and the students were instructed to download Google meet app on their android phone

Day 2: 05.08.2020 registration of nursing students was completed and 108 students were registered for the webinar and after that the registration link was closed.

Day 3: A reminder mail regarding pre-test was

After the online session a post-test link was forwarded to the nursing student via Gmail.

Post-test link:
<https://forms.gle/x6cyvQaZjcFRhx75A>

The students were instructed to fill it within 15 minutes and they were informed that they will get a certificate for successful completion of this webinar if they score 75% or above.

After the completion of post-test a feedback form link was forwarded to the nursing students via Gmail for the feedback and suggestion.

Feedback form link:
<https://forms.gle/cNfYTX3KTm6HuSjV8>

Test assessment was done and after that an E-certificate of completion was given to the students who have scored 75% or above in the post test.

| SR.NO. | CONTENT | NAME | TIME |
|--------|------------------------------------------------------------------------------|------------|------------|
| 1. | Registration | Researcher | 2 days |
| 2. | Pre-test | Researcher | 15 minutes |
| 3. | Topics: | Researcher | |
| | Introduction of COVID-19, Sign and Symptoms. | Researcher | 15 minutes |
| | Risk factors and pathophysiology. | Researcher | 15 minutes |
| | Impact of COVID-19 on mental health, reaction of people to stress and crisis | Researcher | 15 minutes |
| | Prevention of impact of COVID-19 on mental health | Researcher | 15 minutes |
| 4. | Post-test | Researcher | 15 minutes |
| 5. | Feedback | Researcher | 10 minutes |

Data Analysis:

Table 1 Frequency and percentage distribution of nursing students according to Demographic variables

N=100

| Sr.No. | Demographic variables | Percentage | Frequency |
|-----------|----------------------------------------------------|------------|-----------|
| 1. | Age | | |
| A. | 18-20 Years | 25% | 25 |
| B. | 21-23 Years | 47% | 47 |
| C. | 24-26 Years | 17% | 17 |
| D. | Above 26 Years | 11% | 11 |
| 2. | Education | | |
| A. | Diploma | 38% | 38 |
| B. | Degree | 55% | 55 |
| C. | Others | 7% | 7 |
| 3. | State | | |
| A. | Himachal Pradesh | 100% | 100 |
| B. | Others | 0% | 0 |
| 4. | Religion | | |
| A. | Hindu | 100% | 100 |
| B. | Muslim | 0% | 0 |
| C. | Sikh | 0% | 0 |
| D. | Other | 0% | 0 |
| 5. | Previous knowledge regarding online webinar | | |
| A. | Yes | 74% | 74 |
| B. | No | 26% | 26 |

Table No: 2 Range, mean, median and standard deviation of post test score of nursing students regarding level of knowledge of COVID-19 impact on mental health.

| Descriptive Statistics | MEAN | SD | Median score | Range | Mean% |
|------------------------|-------|-------|--------------|-------|-------|
| POSTTEST KNOWLEDGE | 22.79 | 1.233 | 23 | 6 | 91.20 |

Maximum = 25, Minimum = 0

Table No 3 Mean, SD, mean percentage, range, mean difference paired “t” value and “P” value of Pre-test and Post-test Scores.

N=100

| Paired Test | Mean±S.D. | Mean% | Range | Mean Diff. | Paired T Test | P value |
|--------------------|-------------|-------|-------|------------|---------------|---------|
| PRETEST KNOWLEDGE | 17.9±1.967 | 71.60 | 12-23 | 4.890 | 19.933 * | <0.001 |
| POSTTEST KNOWLEDGE | 22.79±1.233 | 91.20 | 19-25 | | | |

** Significance Level 0.05 Maximum=25 Minimum=0

Table 3 showed that. The mean post-test knowledge score of nursing students regarding COVID-19 impact on mental health (22.79±1.233) was higher than mean pre-test knowledge score of nursing students (17.9±1.967).

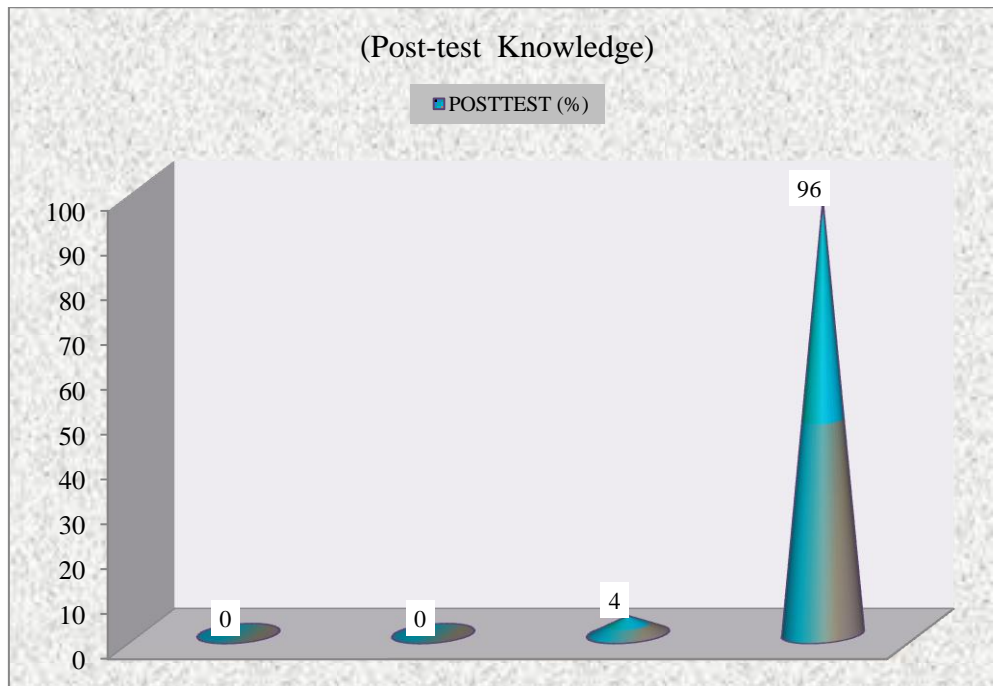


Figure No: 4 Cone graph showed frequency and percentage distribution among nursing student in term of level of knowledge

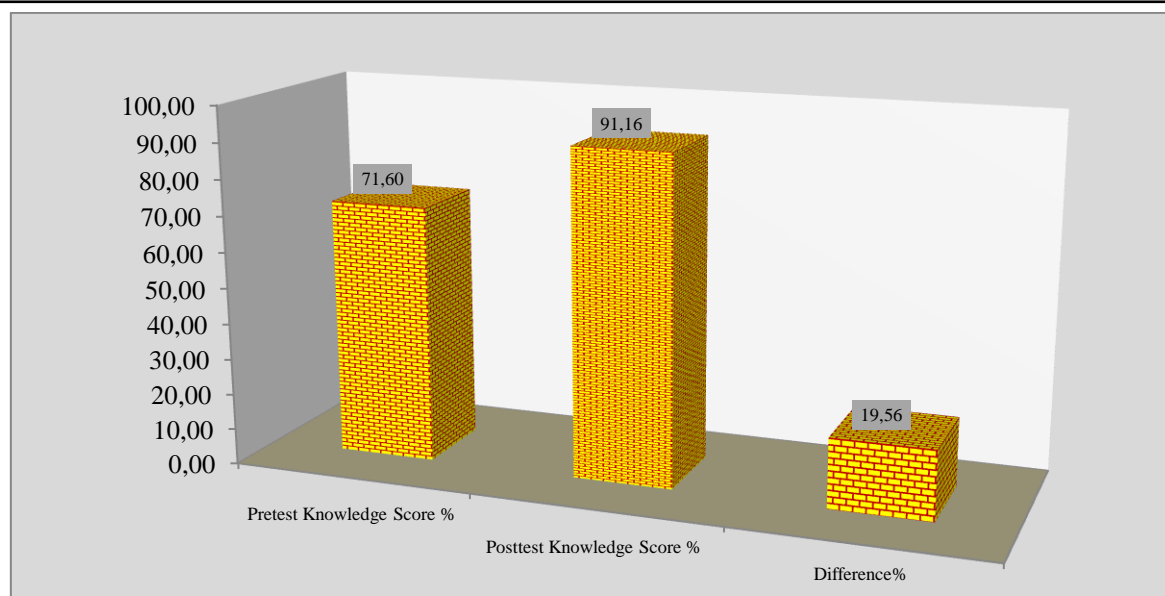


Figure No: 5 Bar graph showed Mean Percentage Scores of pre- test and Post- test knowledge score and the difference percentage.

Table 4 Association of Post-test Knowledge Scores with Selected Socio-Demographic Variables.

| Sr.No. | Demographic variables | GOOD | V. GOOD | Chi Test | t Value | df | P Value |
|-----------|----------------------------------------------------|------|---------|----------|---------|----|---------------------|
| 1. | Age | | | | | | |
| A. | 18-20 Years | 2 | 23 | | | | |
| B. | 21-23 Years | 2 | 45 | 2.216 | 7.815 | 3 | 0.529 ^{NS} |
| C. | 24-26 Years | 0 | 17 | | | | |
| D. | Above 26 Years | 0 | 11 | | | | |
| 2. | Educational Qualification | | | | | | |
| A. | Diploma | 2 | 36 | | | | |
| B. | Degree | 2 | 53 | 0.469 | 5.991 | 2 | 0.791 ^{NS} |
| C. | Others | 0 | 7 | | | | |
| 3. | State | | | | | | |
| A. | Himachal Pradesh | 4 | 96 | NA | NA | NA | NA |
| B. | Others | 0 | 0 | | | | |
| 4. | Religion | | | | | | |
| A. | Hindu | 4 | 96 | | | | |
| B. | Muslim | 0 | 0 | | | | |
| C. | Sikh | 0 | 0 | NA | NA | NA | NA |
| D. | Other | 0 | 0 | | | | |
| 5. | Previous knowledge regarding online webinar | | | | | | |
| A. | Yes | 3 | 71 | | | | |
| B. | No | 1 | 15 | 0.002 | 3.841 | 1 | 0.963 ^{NS} |

(* Significant (p>0.05),(NS Not Significant (p<0.05)

Table showed that the association between the level of score and socio demographic variable. There is no significance association between the level of scores and other demographic variables age, qualification education, state, religion, previous knowledge. The calculated chi-square values were less than the table value at the 0.05 level of significance

Discussion

Our research finding showed that in post-test majority of nursing students (96%) having good knowledge whereas (4%) nursing students having fair knowledge, (0%) average or poor knowledge regarding COVID-19 impact on mental health.

Similarly in a study done by Ramakanta Mohalik “**effectiveness of webinars and online workshops during the covid-19 pandemic**” In this study, 71% of the respondents reported that resource person must have both content knowledge and technological skills specified by the organizers to deliver in the digital platform. 42% of the respondents accepted that many of the resource persons have sound content knowledge but do not have technological skills that are essential to conduct online programmes.

Amirhossein Erfani in this study showed that the majority of participants (82.9%) obtained their information from social media and internet. Also, there was a significant correlation between having higher knowledge of the disease and healthcare workers whose source of information was social media as well as scientific articles and journals

Conclusion

Most of nursing students had high positive knowledge regarding COVID-19 impact on mental health.

The present study concluded that after giving online webinar, the knowledge of nursing student regarding COVID-19 impact on mental health is improving

Competing Interests: The authors declare that there is no conflict of interest in this study.

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Conflict of Interest: Nil

Ethics Committee: Ethical clearance taken from institutional ethical committee.

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