










ORIGINAL

Research COVID 19 anxiety and hygienic level in vocational medical learners

Investigación COVID 19 ansiedad y nivel de higiene en estudiantes de formación profesional médica

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ABSTRACT

Since the ‘2019-NCOV’ pandemic can have a detrimental effect on academic performance and focus skills, it is critical to estimate students’ behaviours, levels of anxiety, hygiene status and knowledge. The purpose of the research was to evaluate the knowledge, behaviour change, anxiety, and hygiene status of university students with reference to ‘2019-NCOV’. A total of 1 500 students from five occupational schools for health services across different provinces in participated in the research. Data was collected through an online survey that included the (Generalized Anxiety Disorder 7) GAD-7 scale, and questions assessing knowledge about ‘2019-NCOV.’ Students who got training in hand hygiene also scored much lower on the scale than students who did not, demonstrating good hygiene habits. In comparison to men, women scored considerably higher on the GAD-7 scale, demonstrating higher levels of anxiety. Overall, over fifty percent of the kids showed good hygiene habits, whereas around a third struggled with anxiousness Women fared higher in terms of behaviour and knowledge, and they demonstrated a greater awareness of anxiety symptoms and personal hygiene habits. In light of these findings, it was suggested that during infectious disease outbreaks, programmes for the psychological support of healthcare students be developed.

Keywords: 2019-NCOV; Pandemic; Hygiene Habits; Student’s Knowledge; Anxiety.

RESUMEN

Dado que la pandemia «2019-NCOV» puede tener un efecto perjudicial sobre el rendimiento académico y la capacidad de concentración, es fundamental estimar los comportamientos, los niveles de ansiedad, el estado higiénico y los conocimientos de los estudiantes. El objetivo de la investigación era evaluar los conocimientos, el cambio de comportamiento, la ansiedad y el estado de higiene de los estudiantes universitarios en relación con la pandemia «2019-NCOV». Participaron en la investigación un total de 1 500 estudiantes de cinco escuelas ocupacionales de servicios sanitarios de diferentes provincias. Los datos se recopilaron a través de una encuesta en línea que incluía la escala GAD-7 (Trastorno de Ansiedad Generalizada 7) y preguntas que evaluaban los conocimientos sobre ‘2019-NCOV’. Los estudiantes que recibieron formación en higiene de manos también obtuvieron puntuaciones mucho más bajas en la escala que los estudiantes que no lo hicieron, lo que demuestra buenos hábitos de higiene. En comparación con los hombres, las mujeres

puntuaron considerablemente más alto en la escala GAD-7, demostrando mayores niveles de ansiedad. En general, más del cincuenta por ciento de los chicos mostraban buenos hábitos de higiene, mientras que alrededor de un tercio luchaba contra la ansiedad. Las mujeres obtuvieron mejores resultados en cuanto a comportamiento y conocimientos, y demostraron una mayor conciencia de los síntomas de ansiedad y de los hábitos de higiene personal. A la luz de estos resultados, se sugirió que, durante los brotes de enfermedades infecciosas, se desarrollen programas de apoyo psicológico a los estudiantes de sanidad.

Palabras clave: 2019-NCOV; Pandemia; Hábitos de higiene; Conocimiento de los estudiantes; Ansiedad.

INTRODUCTION

The ‘2019-NCOV’ endemic has had a significant detrimental impact on the mental health of many diverse cultures, in addition to generating serious health problems. Medical students and aspiring healthcare professionals have experienced particular difficulties among those who have been impacted because of their proximity to the front lines of healthcare delivery. These students probably experience greater anxiety and a greater concentration on cleanliness practices due to their increased exposure to the virus and the stressful nature of their profession.⁽¹⁾ A variety of psychological reactions, such as anxiety, tension, and terror, have been induced by the ‘2019-NCOV’ pandemic as a result of the virus’s unknown origins, the danger of contracting the disease, and the onerous workload placed on medical students. These people frequently come into contact with patients who have ‘2019-NCOV’ cases that are either suspected or confirmed, which makes them feel more vulnerable and worried about their own health and the health of those they care about. Their performance, general well-being, and mental health may all suffer due to this anxiety.⁽²⁾ It can provide insight into the elements influencing their adherence to hygiene practices and shed light on the psychological effects of the epidemic on this particular group. To safeguard their well-being and improve the safety of both patients and healthcare personnel, it can be helpful to examine the anxiety levels and hygiene practices of vocational medical learners.⁽³⁾

The ‘2019-NCOV’ pandemic has also highlighted how crucial it is to follow good cleanliness procedures. To reduce the danger of transmission, it’s essential to practice good hand hygiene, use personal protection equipment (PPE) correctly, and follow infection control procedures. Vocational medical college students are acutely aware about the relevance of those procedures and their contribution to retaining a stable medical placing. With frequent reminders and training in contamination manage strategies, the pandemic has compelled a more emphasis on these processes .⁽⁴⁾ To collect a radical expertise of the pandemic’s outcomes in this precise demographic with the aid of evaluating their levels of worry, perceptions, attitudes, and behaviors approximately hygiene practices.

The psychiatry effects of ‘2019-NCOV’ on survivors at a one-month follow-up while considering the potential impact of various risk variables was the goal the paper. In addition to having a sizable negative effect on human beings’s physical health, the ‘2019-NCOV’ pandemic epidemic has also had a big negative impact on human beings’s intellectual health, even virus survivors. Determined the prevalence of anxiety and sadness among residents of the ‘2019-NCOV’ epidemic.⁽⁵⁾ Recognizing the prevalence of these mental health issues is crucial for developing effective interventions and support measures, given the significant impact the pandemic has had on communities’ mental well-being worldwide.⁽⁶⁾ Improved the psychiatric response to the ‘2019-NCOV’ infection by developing and examining short tests that could detect anxiety symptoms with the ‘2019-NCOV’ virus the unique relationship exists exactly. To understand the psychological effects of the epidemic and pinpoint elements that help people manage with the situation by looking at concerns and fears related to ‘2019-NCOV’.⁽⁷⁾ author outlined the salient characteristics associated with concerns and fears regarding ‘2019-NCOV’ and speculatively identify personality factors that might support resilience while interacting with infected people.⁽⁸⁾ Characterized the stages of hysteria experienced by using health center workforce in Finland all through the ‘2019-NCOV’ epidemic. To measure the psychological effect and create specialised help plans, it turned into crucial to realize the level of anxiety that healthcare experts are experiencing as a result of the pandemic epidemic.⁽⁹⁾

Explore how front-line nurses’ individual resiliency, social support, and organizational support relate to lowering ‘2019-NCOV’ anxiety. Understanding the characteristics that can reduce anxiety was essential for healthcare personnel’ well-being and efficient patient care, given the considerable burden the ‘2019-NCOV’ pandemic has placed on them, especially those working on the front lines.⁽¹⁰⁾ Investigate the associations among ‘2019-NCOV’ nervousness, ‘2019-NCOV’ coping, and overall health. In addition to examining how ‘2019-NCOV’ coping affects the association among ‘2019-NCOV’ anxiety and overall health, the research sought to evaluated the validity of the metrics utilized.⁽¹¹⁾ The population’s likely prevalence rates for depression and GAD. It also intended to pinpoint socio-demographic risk factors linked to depression or GAD screening positively.⁽¹²⁾ University students awareness of ‘2019-NCOV’, behavior changes, anxiety levels, and degree of hygiene.⁽¹³⁾

Concerns have been raised by the '2019-NCOV' pandemic outbreak on how people, notably university students, are controlling and avoiding the virus' spread. Examined the students' knowledge, behaviour changes, degrees of anxiety, and hygiene practices regarding '2019-NCOV' was the goal of the research. Understanding university students' awareness and behaviors in light of the '2019-NCOV' pandemic was essential for both halting the virus' transmission and enhancing their well-being.⁽¹⁴⁾

To determine the immediate effects of '2019-NCOV' on students' willingness for clinical practice or residency and to investigate the relationships between these effects and various well-being factors, such as perceived stress, anxiety, coping mechanisms, resilience and social support.⁽¹⁵⁾ To provide a theoretical framework for counseling medical students. An author can lay a basis for understanding the distinct emotional requirements and concerns of the demographic by looking at the mental health condition of medical students.⁽¹⁶⁾ With the knowledge, evidence-based therapies that target the particular pressures faced by physicians and promote their psychological well-being throughout their studies can be developed. Compared the participants in the sporting condition with those in the film condition, there were observable differences. In particular, in contrast to participants in the film condition, those in the game condition showed greater amounts of motivation from within and more steady development in sanitary self-efficacy.⁽¹⁷⁾ Information from a random selection of 874 undergraduates via an online survey. The translated versions of the CESD-R, and MHI-5, and GAD-7 scales have to be filled out by the contributors. These measurements provided information about the subjects' anxiety levels, depressive symptoms, and overall mental health.⁽¹⁸⁾

METHOD

Research concentrated on students enrolled in three different healthcare vocational programs. 3,500 students made up the entire population. Each additional student comprised in this research, using a random collection procedure. 1,500 of the 1,846 pupils who were chosen to participate.

Data gathering instruments

Five components make up the questionnaire used in this investigation. Demographic inquiries were asked in the first segment to learn more about the individuals. Contributors in the second section, which asked them about safe practices, were tested on their understanding of '2019-NCOV'. The researchers developed these inquiries based on data they found on the World Health Organisation (WHO), Ministry of Health, and pertinent related websites. The total score in this part ranged from 0 to 6, with one point being awarded for each question that was successfully answered.

The third question on the survey was about changing behaviour. It was specifically designed to measure students' perceptions of changes to their social and personal hygiene practices due to the '2019-NCOV' pandemic. Contributors were probably asked to consider any adjustments they had made to their hygiene routines and social contacts in response to the epidemic in the inquiries in this section. It is important to note that the description given does not refer to the fourth or fifth questionnaire sections' structure or content.

Seven-item Generalised Anxiety Disorder scale (GAD-7)

A Likert scale is used by users to score the degree of their anxiety symptoms, with response possibilities that range from 0 - 3. The GAD-7 scale has a total score range of 0 to 21, and higher scores on the scale reflect higher levels of anxiety. To categorize the severity of anxiety, cut-off points have been established: a rating of 5 indicates little anxiety, a score of 10 shows moderate stress, and a score of 15 shows severe anxiety. According to their GAD-7 scale scores, these cut-off points aid in evaluating and categorizing the respondents' anxiety levels.

Scale of hygienic habits

The scale's internal consistency, as evaluated to be 0,90, indicates adequate reliability. The 25 inquiries that made up the hygiene behaviour scale utilized in the research were further broken down into three sub-dimensions: personal hygiene, hand washing, and food hygiene. There were 6 inquiries concerning sanitizing, 6 inquiries about food safety, and thirteen inquiries about personal hygiene. Contributors were given points for scoring depending on their answers. One point was awarded for "always," two for "occasionally," three for "rarely," and four for "never." The scale was created so that as the score rose, good hygiene habits became less prevalent. The scale allowed for a maximum total score of 100 and a minimum total score of 25. A cut-off point was set to categorize contributors' hygiene practices. According to their responses on the scale, those who received a score of 38, suggesting that they engaged in less desirable hygiene habits.

Statistical analysis

In this research, data analysis was done using SPSS version 29, a statistical programme. The data were summarised using descriptive statistics, which included numbers, percentages, and averages, that aids in determining whether the information's distribution is normal. For analyses of more than two groups, the one-

way ANOVA approach was employed, and binary groups were examined using the student t-test. When there were apparent differences between the groups, a post-hoc analysis was performed to discover the specific causes of the discrepancies. A Pearson correlation analysis was conducted to evaluate the relationship between the quantitative variables. Statistical research employed a p-value of less than 0,05 to indicate statistical significance.

RESULT

A total of 1 500 students took part in this survey, with women making up 78,6 % contributors. Students' ages ranged from 17-50 years old, with an average lifespan $21,01 \pm 2,54$ years. Additionally, 40,9 % of the children were in the second grade, compared to 59,1 % of the students who were in the first. The table 1 regarding education and training, 66,0 % of the students had received hand hygiene instruction, and 56,5 % had attended lectures on infectious diseases. 4,9 % of the students said that they had first- or second-degree relatives who had tested positive for '2019-NCOV'.

Features	Status	%	Number
Marital Status	Married	3,8	29
	Single	98,4	1028
Age	≤20 age	55,5	575
	>20 age	46,7	482
Gender	Female	74,6	776
	Male	27,6	281
Family's economic situation	Low	19,2	192
	Medium	77,5	807
	High	6,6	59
The location where he/she has spent the majority of their life	Rural	18,3	182
	District	20,9	210
	City	64,1	666
Duration of time spent at university	First grade	74,6	625
	Second grade	27,6	432

77,9 % of the contributors in the survey who were students with assertions made by professionals regarding '2019-NCOV'. In addition, 83,8 % of respondents believed that science and technology would ultimately find a solution. Only 12,3 % of the contributors said they had thought about leaving an educational institution because they were worried they could be exposed to '2019-NCOV' at their future jobs. Students did best on the '2019-NCOV' knowledge test when asked about the significance of avoiding hand, eye, and mouth contact with unwashed hands to minimize viral transmission. The question about whether contracting '2019-NCOV' can serve as protection received the least amount of right responses. The knowledge portion saw an average score of $5,34 \pm 1,09$ out of a possible 6 points. Percentages of correctly answered inquiries regarding knowledge are shown in table 2. Students reported modifications in their behavior about '2019-NCOV', such as refraining from handshakes and minimizing interaction with people exhibiting symptoms. The subjects demonstrated a considerable degree of behavioral change, as shown by the mean total score for '2019-NCOV' associated behavior of $17,30 \pm 5,83$. The responses that students offered in response to the '2019-NCOV'-related behavioral inquiries are shown in table 3.

Inquiries	Answer (n%)
Keeping up an active way of life will help prevent '2019-NCOV' (yes)	975 (88,5)
Comprehension grade on the '2019-NCOV'	4,89
It is possible to get immune to the virus and defend against '2019-NCOV' through infection (yes)	894 (84,4)
People are at substantial and even life-threatening risk from '2019-NCOV' (yes)	914 (87,4)
Hand washing properly with water and soap can guard against '2019-NCOV' and stop the spread of viruses.	1046 (94)

Questions	Slightly changedn (%)	Changed a lotn (%)	I don't known (%)	Unchanged n (%)	Moderately changedn (%)
Hand washing behavior	210 (19,8)	330 (31,2)	34 (3,1)	276 (26,1)	210 (19,8)
Buying disinfectants	244 (23,0)	352 (33,3)	57 (5,3)	209 (19,7)	198 (18,7)
Avoiding contact with people who have symptoms	98 (9,1)	719 (68,1)	55 (5,1)	64 (6,0)	124 (11,7)
Avoiding social meetings	128 (12,0)	583 (55,3)	88 (8,2)	95 (8,9)	166 (15,6)
Avoiding handshakes	112 (10,5)	695 (65,8)	42 (3,9)	79 (7,4)	132 (12,4)
Avoiding public services	174 (16,4)	420 (39,8)	111 (10,4)	149 (14,0)	206 (19,4)

Research discovered that 31,5 % of the pupils had anxiety, as shown in figure 1. Additionally, 59,6 % of the pupils generally had good hygiene habits. 42,7 % of people demonstrated good among the sub-dimensions of hygiene behaviors.

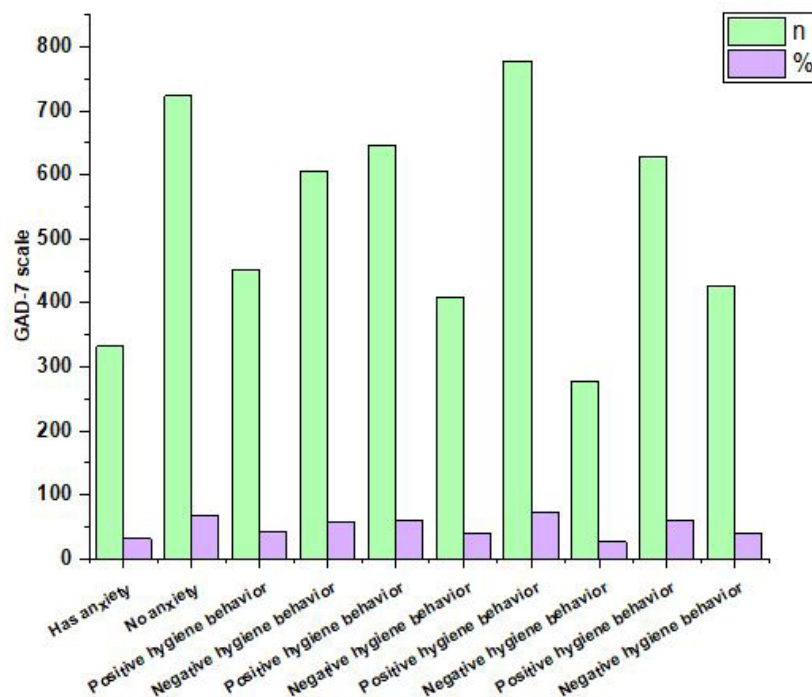


Figure 1. Distribution of the students

Several important findings from this investigation were noted. Compared to male pupils, female students scored significantly lower overall on the Hygiene Behaviour Scale (HBS). Additionally, compared to students over 20, students under 20 had substantially lower HBS results. Additionally, students who received hand hygiene instruction scored less well on the HBS compared to those who did not ($p < 0,05$). Based on the university where the education was offered, there was a significant difference in the overall HBS score ($p = 0,003$). Women scored considerably higher overall on the Generalised Anxiety Disorder 7 (GAD-7) scale than did men. Additionally, second-graders greatly outperformed first-graders regarding their GAD-7 scores ($p < 0,05$). The impression of family economic status and the overall GAD-7 score varied significantly between those who ranked it as “high” and “medium,” in particular ($p = 0,022$).

The overall HBS scores showed a positive correlation with mean age, showing that HBS scores tended to rise with age. There was a negative correlation between age and GAD-7 scale scores, indicating that GAD-7 scores tended to decline with age. Higher cleanliness behavior scores were linked to higher anxiety levels, and there is a significant positive correlation among the GAD-7 and overall HBS scores. Additionally, there was a bad association among the knowledge, behavior scores and the overall HBS scores. The correlation between knowledge and behavior ratings was favourable.

Limitations of the research

Research was impossible to demonstrate a causal connection among both independent and dependent variables because the research was cross-sectional. Although the survey was done at several locations, it is crucial to highlight that it did not include all of healthcare schools, which can be viewed as a research constraint.

CONCLUSION

According to the survey, students scored highly on the '2019-NCOV' in terms of knowledge and behavior change. Over fifty percent of the children demonstrated good hygiene practices, while more than one-third of the students displayed anxiety. Women performed better in terms of knowledge and behavior, and they showed more awareness of anxiety perceptions and cleanliness practices. It is advised to create psychological support programs for healthcare students during infectious disease outbreaks in light of these findings. Students can manage their psychological well-being during these trying times by doing things like working out at home, working remotely, reading books, listening to music, and staying in touch with friends and family. Additionally, teaching on good hygiene practises has to receive more attention. The long-term effects of '2019-NCOV' anxiety and cleanliness levels on vocational medical learners could be the subject of future research. This can entail researching the endurance of symptoms of anxiety and the endurance of good hygiene practises over time. The efficiency of various emotional interventions and training programmes that are especially suited to the requirements of vocational medical learners can also be investigated.

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CONFLICTS OF INTEREST

None.

FINANCING

None.

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