International E-Conference on
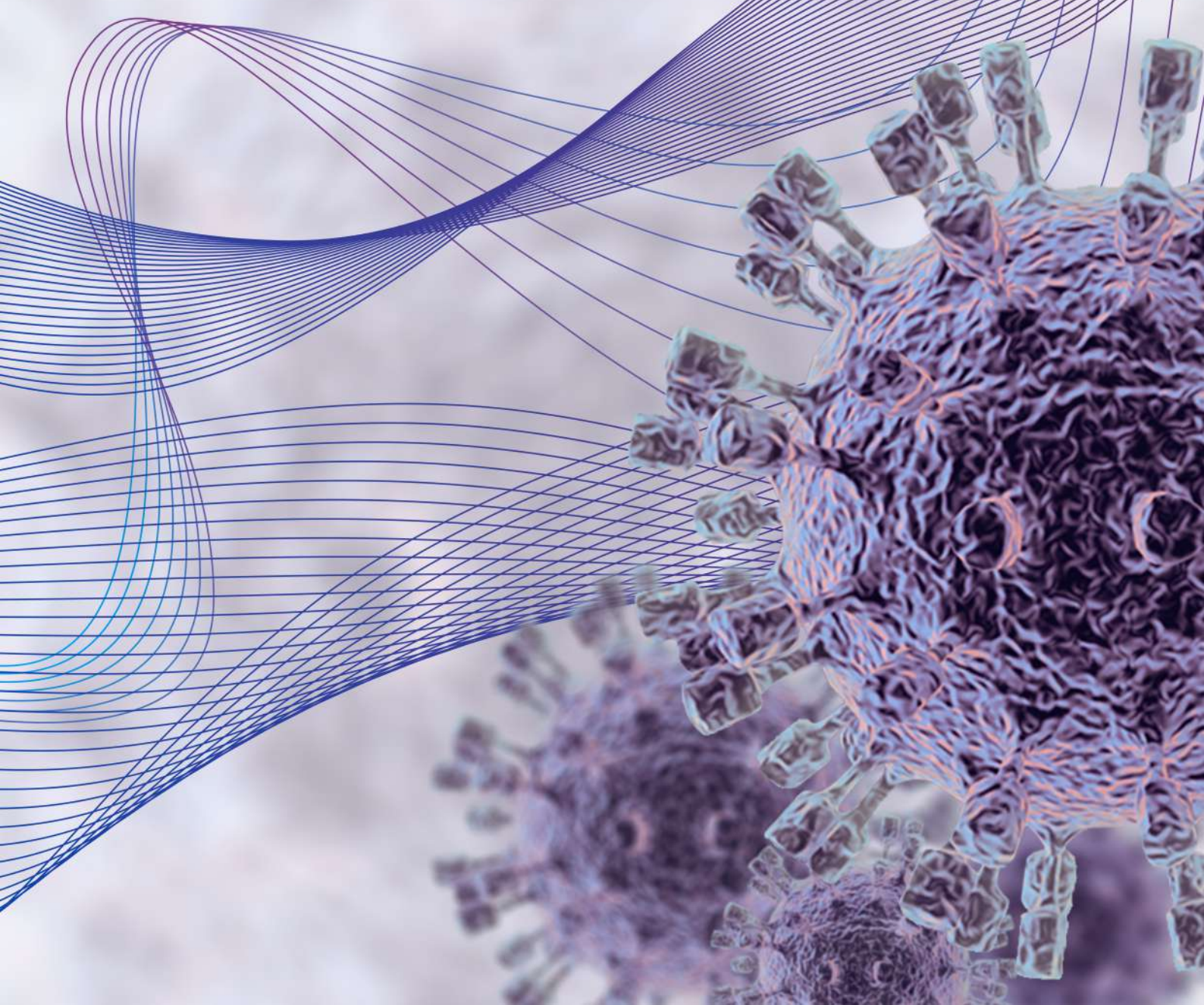
COVID-19

& Health System

The Lessons Learned

May 25-27, 2021, Zanjan, Iran

Hosted by: Zanjan University of Medical Sciences, Zanjan, Iran

In the name of God

International E-Conference on COVID-19 & Health System: The Lessons Learned

May 25-27, 2021

Zanjan University of Medical Sciences
Zanjan, Iran

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Organizers

Zanjan University of Medical Sciences

Islamic Republic of Iran
Ministry of Health and Medical Education

Ministry of Interior
Zanjan Municipality

Institute for Advanced Studies in Basic Sciences (IASBS)

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http://covid19.zums.ac.ir

Chairman's Message

We are honored to host a scientific and research-based event in our country which deals with recent concern of all societies and addresses the current pandemic of covid-19. In "COVID-19 & Health System: The Lessons Learned" conference, as the title illustrates well our objectives mainly focus on: the acquired lessons as well as recounting and sharing the experiences; the approaches implemented by the health care systems in facing covid-19 as a new and unknown disease; perceived weaknesses and strengths over the disease control and management; the treatment methods and the efficiency of taking various protective and health care measures to preserve environment; effective nursing and medical cares; screening methods; recommended diets; efficient health care systems; methods of educating people and providing public awareness and encouraging public collaborations; the approaches to intersectional coordination; mental health empowerment, religious beliefs and health care system; and last but not least diagnosing and reporting methods. All of these issues are controversial in facing a new disease. We hope to provide a positive atmosphere for all the esteemed researchers and participants wherein they share their latest scientific and research findings due to the nonstop nature of emerging diseases worldwide over the ages. Also, we hope this event will release practical and valuable results to boost the management methods in dealing with novel diseases particularly Covid-19.

Dr. Parviz Ghezelbash

Chairman

Scientific Secretary's Message

In less than 15 months, Covid-19 had travelled around the world, and had a huge global impact. Although Covid-19 quickly influenced the world but innovative activities and continual attempts to confront this new virus to prevent, diagnose and treat it, had been done. This virus had fundamentally challenged the health systems nationally and internationally. For this global and national reason, weaknesses and strengths of different countries were quickly unfolded. Expenditures and shortage of health infrastructures and other resources became an issue. But on the other side of this chaos, unity and a new global discipline against this pandemic was shaped. Different countries started different strategies to combat against the epidemic. Health systems around the world learned many lessons. That shined a light not only for this illness but also for any emerging global diseases. This Conference with the target of analyzing and determining policies, strategies and experiences resulted to write for the history and the use of it for future people was designed and hold.

Dr. Alireza Shoghli

Scientific Secretary

Scientific Committee

Dr. Parviz Ghezelbash

Dr. Alireza Shoghli

Dr. Mazyar Peyda

Dr. Zahra Karami

Dr. Kobra Rostamizadeh

Dr. Ramazan Korkmaz

Dr. Sir John Daniel

Dr. Alireza Ranjbar

Dr. Koen Ponnet

Dr. Cristina Mussini

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Dr. Shahram Kordasti

Dr. Mohamoudreza Pourkarim

Dr. Maryam Nobarani

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Dr. Ayoub Pezeshgi

Dr. Ahmad Reza Mobayen

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Dr. Abdolreza
Esmaeilzadeh

Dr. Samad Ghodrati

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Saeini

Dr. Mohammad Reza
Mehrasbi

Dr. Giti
Karimkhanlooei

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Bosari

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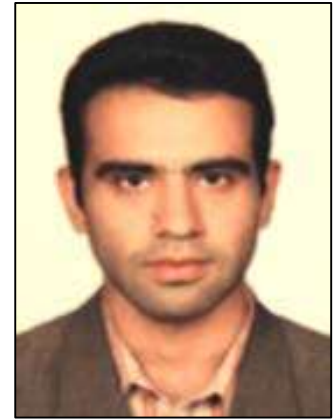
Dr. Hassan
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Rouhi

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Dr. Giti Karimkhanlooei

Akbar Mansouri

Zahra Babalou

Invited Speakers

Dr. Parviz Ghezelbash

Chancellor of Zanjan University of Medical Sciences

Chairman of the Conference

Zanjan, Iran

Dr. Jaffar Hussain

WHO Representative in Iran

Mandeep O`brien

UNICEF Representative in Iran

Dr. Ramazan Korkmaz

President of the Caucasus Universities Association

Maltepe University

Turkey

Dr. Alireza Biglari

Pasteur Institute of Iran, Tehran, Iran

Zanjan University of Medical Sciences, Zanjan, Iran

Dr. Farid Najafi

Deputy Minister for Research and Technology at Ministry of Health

Tehran. Iran

Dr. Farhad Abolnezhadian

Chancellor of Ahvaz Jundishapur University of Medical Sciences

Ahvaz, Iran

Dr. Mansour Ranjbar

NCD and Mental Health Unit Head World Health Organization Covnty Office

Tehran, Iran

Dr. Jafar Sadegh Tabrizi

Head of the Development Center for Health Care Networks

Tehran, Iran

Dr. Masud Younesian

Tehran University of Medical Sciences

Tehran, Iran

Dr. Mohamoudreza Pourkarim

Rega Institute for Medical Research

Belgium

Dr. Payam Peymani

Erasmus University Medical Center

Rotterdam, Netherlands

Dr. Alireza Zaali

Chancellor of Shahid Beheshti University of Medical Sciences

Tehran, Iran

Dr. Alireza Ranjbar

Institute of Interventional Allergology and Immunology

Germany

Dr. Dominique Salmon

Professor of Infectious and Tropical Diseases at Public
Hospital of Paris, University of Paris France

Paris, France

Dr. Shirin Ahmadnia

Allameh Tabataba'i University

Tehran, Iran

Dr. Koen Ponnet

imec-mict-Ghent University

Belgium

Dr. Hossein Imani Jajarmi

Tehran University of Medical Sciences

Tehran, Iran

Dr. Mostafa Ghanei

Secretory of Presidency Headquarter for Biotechnology Development

Tehran. Iran

Dr. Mohammad Mehdi Gouya

Director General of Communicable Diseases Center, MOHME

Tehran, Iran

Dr. Cristina Mussini

Head of Department of Infectious Diseases and Tropical Medicine

University of Modena and Reggio Emilia

Italy

Dr. Shahram Kordasti

Comprehensive Cancer Centre

United Kingdom

Dr. Mehrdad Hamidi

Zanjan University of Medical Sciences

Zanjan, Iran

Dr. Mohsen Asadi Lari

General Director of the International Cooperation Department at Ministry of Health

Tehran, Iran

Dr. Sir John Daniel

Acsenda School of Management

Canada

Dr. Mohammad Hosseini Moghadam

Department of Foresight, Institute for Social and Cultural Studies

Tehran, Iran

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00450023	Hossein Mohseni Pouya	The Role of Self-Efficacy in Perceived Sensitivity and severity to COVID-19 Virus Preventive Behaviors
00580063	Zahra Khatirnamani	Modeling of Survival Time of Patients with COVID-19: A Cross-Sectional, Retrospective Study in Northern Iran
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Oral

Abstracts

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covid19-00120122

Participations' Goals of Community-Based Organizations in the COVID-19 Pandemic based on Capacity-gaps: A Cross-Sectional Study

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Introduction: There have been criticisms that local authorities develop disaster planning independently, which led to less sensitiveness and responsibility of community-based organizations (CBOs). Disasters planning should incorporate into CBOs' management processes. This study aims to set goals of a community-based plan based on preparedness capacities that CBOs need to have in the COVID-19 pandemic.

Method: This cross-sectional study used a pre-validated and reliable questionnaire assessing (CBOs). The tool assesses preparedness in the field of planning, training, and infrastructure. Forty CBOs met the inclusion criteria as assisting or cooperating agencies during the COVID-19 pandemic. Then, key informants, who simultaneously have been working in the health system and CBOs, prioritized low-scale items that have showed capacity-gaps according to effects on the vulnerable group, sustainability, and capability of the health system. Descriptive statistics performed using SPSS18 software (SPSS Inc., Chicago, USA) .

Results: The results showed that the preparedness of CBOs was weak in the field of planning, training, and infrastructure. Besides, overlaps of CBOs' resources and covering the clients' medical needs in the COVID-19 pandemic were the most priority that needs to be intervened .

Conclusion: Providing medical needs by CBOs require legal legitimacy assigned by health authority especially in epidemic-prone diseases. Additionally, assigning a coordinator to set priority list and mutual agreements authorized by health departments can solve the problem of overlapped resources. Therefore, planning for strategies and functional roles of CBOs in the pandemic should focus mostly on resources allocation and medical needs of clients to set goals and functional objectives.

Keywords: COVID-19, Community Health Centers, Pandemics

Prioritization of Self-Care Indicators in the Prevention and Control of Covid Disease (COVID-19) based on Entropy and TOPSIS Algorithm (Case study: Ardabil province)

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Background and Aim: The rapid spread of COVID-19 has recently become a worldwide health challenge. Coping with the highly contagious outbreak of COVID-19 requires preventive measures and self-care behaviors in the first instance. Therefore, the use of techniques and methods of coping, disease prevention as well as management, lifestyle, education and use of health items and providing self-care instructions can prevent further spread of the disease. Prioritization of self-care indicators in the prevention of COVID-19 in Ardabil province, which is one of the foci of the disease, is examined.

Methods: This research is a descriptive field survey. The data analysis of this research will be based on weighting with entropy algorithm and prioritization with TOPSIS algorithm.

Results: The results of this study showed; Sub-index: Increasing awareness of people about the prevalence of infection with proximity coefficient $(CL_i +)$ 0.8673, washing hands with soap and water or disinfecting with alcohol-based solution with proximity coefficient $(CL_i +)$ 0.9391, electronicization of most activities Employees' work with a coefficient of closeness $(CL_i +)$ of 0.8687, observing a safe distance (1.5 meters) from people who cough and sneeze with a coefficient of closeness $(CL_i +)$ of 0.8277, avoiding any gatherings with a coefficient of closeness $(CL_i +)$ 0.9276, as the most important indicator among self-care methods in Ardabil province have gained.

Conclusion: This study is a proposed method to assist health care providers in making decisions and selecting the COVID-19 self-care model in Ardabil province.

Keywords: Self-care behaviors, Covid disease 19 (COVID-19), ENTROPY algorithm, TOPSIS algorithm

covid19-00450023

The Role of Self-Efficacy in Perceived Sensitivity and Severity to COVID-19 Virus Preventive Behaviors

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Background and Objectives: Self-efficacy is an important prerequisite for behavior, especially preventive behaviors of Covid-19 disease. Identifying the factors that lead to increased self-efficacy in individuals can pave the way for the necessary decisions to change the behavior of individuals in society. Therefore, this study was performed to determine the relationship between self-efficacy and sensitivity, perceived severity of preventive behaviors of Covid-19 virus in patients referred to certain clinics in Sari.

Materials and Methods: This descriptive-analytical study was performed on 268 patients referred to certain corona centers in Sari in 1399. The sampling method was purposeful and available. Data collection was online and through a researcher-made questionnaire in 3 parts. SPSS-23 and Pearson correlation coefficient, analysis of variance and multiple regression were used to analyze the data. Significance level was considered $\alpha = 0.05$.

Results: The mean age of the study population was 36.81. 8.6. 17.5% of the subjects had coronary artery disease. 81.3% of people used soap and water to disinfect their hands. There was a significant correlation between self-efficacy and perceived severity ($P = 0.001$, $r = 0.288$) as well as self-efficacy and perceived sensitivity ($P = 0.001$, $r = 0.278$). Perceived sensitivity and severity also predicted 10% of the variance in self-efficacy.

Conclusion: Strengthening the perceived severity and sensitivity of people in the community to adhering to the principles of covid-19 prevention can lead to increased self-efficacy.

Keywords: Covid-19 Disease, Perceived Self-Efficacy, Perceived Sensitivity, Perceived Severity

covid19-00580063

Modeling of Survival Time of Patients with COVID-19:
A Cross-Sectional, Retrospective Study in Northern Iran

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Coronavirus disease 2019 is a new viral disease and in a short period, the world has been affected in various economic, social, and health aspects. This disease has a high rate of transmission and mortality. Assessing the survival rate of COVID-19 patients and its related factors in different regions can help manage the disease in the treatment process and prepare for the epidemic. This study aimed to model the survival time of patients with COVID-19 disease in Golestan province in northern Iran.

In this cross-sectional and retrospective study, the data of 4733 patients with COVID-19 admitted from September to December 2020 were used. We applied survival analysis to investigate the impact of COVID-19 on the patients. From this analysis, we plotted Kaplan-Meier curves and constructed a Cox proportional hazard model. The time interval between identifying individuals as COVID-19 and the time of death or the end of the study was considered as the time of survival or censorship (response variable) and if the individual died during the study, he/she has event status and gets code 1 and if the individual survives during and not recover (Given that censorship should be non-informative), he/she has censor status and gets code 0. For all the statistical analyses, P?

Keywords: COVID-19, Cox Proportional Hazard, Iran

covid19-00650032

Comparing the Effectiveness of Online Balint Group Work with Pharmacotherapy in Coronavirus Anxiety in Healthcare Workers in Iran: A Randomized Clinical Trial

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Background: An increase in symptoms of anxiety is already being reported in relation to the COVID-19 pandemic.

Objectives: We aimed to compare the effectiveness of Balint group work with pharmacotherapy in coronavirus related anxiety among healthcare workers (HCWs) in Iran.

Methods: In This non-inferiority clinical trial, after passing a phone screening procedure by a psychiatrist, subjects were quasi-randomly assigned to Balint (8 sixty-minute online sessions) or pharmacotherapy (Sertraline) groups. Both groups were asked to fill two questionnaires, including the Corona Disease Anxiety Scale (CDAS) and Connor-Davidson Resilience Scale (CD-RISC), at the beginning and the end of the 4-week intervention period.

Results: A total of 45 HCWs enrolled in this study. The results showed a significant difference between the post-test and pre-test scores of both groups in the total scores of anxiety and its subcomponents (p≤0.001). There was no significant difference between the effectiveness of the two interventions on anxiety (p=0.52). Both interventions had a significant effect on the subjects' resilience and its subscales (p≤0.05) except for positive acceptance change. The spiritual influences domain had a significantly higher increase in the pharmacotherapy group (P=0.031).

Conclusions: We showed Balint group work is non-inferior to pharmacotherapy with Sertraline in management of COVID-19 related anxiety and boosting resilience in healthcare workers.

Keywords: Online Balint Group Work, Pharmacotherapy, Anxiety, Resilience, COVID-19

Determining Survival Rates and Influencing Factors in COVID-19 Patients in the West of Iran via Proportional Hazard Cox Model: A Registry-Based Retrospective Cohort Study

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Background: Coronavirus disease 2019 (COVID-19) is a contagious disease created by a newly identified coronavirus. Epidemiological and clinical features of patients with COVID-19 have been examined but There is no report on the survival rate of coronavirus disease 2019 (COVID-19) in Iran and the world. Thus this study proposed to estimate the survival function of COVID-19 in western Iran.

Material and Methods: This retrospective cohort study was performed in Hamadan province, located in the west of Iran. The study included patients that referred to the provincial hospitals during 7 months period from February 20 to September 20, 2020. The follow up of each subject was calculated from the date of onset of respiratory symptoms to the date of death. Demographic and clinical data were extracted from patients' medical records using a checklist. Statistical analysis included the Kaplan-Meier method to analyze survival, log-rank to compare curves between groups, and Cox regression for multivariate prognostic analysis.

Results: The overall 1, 5, 10, 20, 30 and 49-day survival rate were 99.57%, 95.61%, 91.15%, 87.34%, 86.91%, and 86.74% respectively. A significant relation was observed between survival time and the variables such as age, gender, history of traveling to contaminated areas, having underlying disease, malignancies, and chronic diseases, and inpatient units.

Conclusion: Health programs and access to healthcare should be provided to reduce the burden of this disease in groups with high mortality rates of COVID-19.

Keywords: Survival, COVOD-19, Kaplan-Meier Estimate, Proportional Hazards Models, Iran

The Nexus between Health Security Index and the Spread of COVID-19 within Highly Infected Societies

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The Global Health Security Index (GHSI) is constructed to measure the vulnerability of the world's health systems to widespread diseases and health risks based on six components. These components include the Prevention of the Emergence or Release of Pathogens, Early Detection & Reporting Epidemics of Potential International Concern, Rapid Response to and Mitigation of the Spread of an Epidemic, Sufficient & Robust Health Sector to Treat the diseases & Protect Health Workers, Compliance with International Standards to fulfil the commitments at both national and global levels, and the Degree of Vulnerability of Countries to Biological Threats. Based on these components, countries with a higher GHSI scores are expected to have lower mortality rates due to epidemics and health system risks, including the COVID-19 pandemic. This research evaluates the explanatory potential of GHSI index in accordance with the resilience of the health system among highly infected countries with two criteria: infection and mortality rates (per million people) against COVID-19 pandemic. For this purpose, firstly, countries with a coronavirus incidence rate greater than one million (24 countries, including Iran) were selected and the correlation between each component of the GHSI index with the spread of coronavirus and mortality rate was calculated. Multiple Linear Regression and Robust Regression Sensitivity Analysis were used to evaluate these components. Accordingly, corresponding data was collected from global statistical sources such as Johns Hopkins University and the World Bank. The results show that the components of the GHSI index play a significant explanatory role in both the spread of COVID-19 and its related mortality rate. Specifically, the three components of prevention, detection, and vulnerability of countries to biological threats have shown the highest impact on the spread of COVID-19. On the other hand, to explain the mortality rate related to COVID-19, the two components of countries' vulnerability to biological risks, together with an efficient and resilient health system have had the greatest impact, respectively. In addition to the GHSI components, the investigation is extended to evaluate potential impact of the three other variables namely GDP per capita, Government Stringency Policies, and the percentage of the population aged 65 and over, on the spread of COVID-19 as explanatory role. Evidence suggests that the two variables of population structure and stringency index are associated with the spread and mortality rate of COVID-19. The results of this study show that although the GHSI index has a high explanatory power in explaining the spread of coronavirus and its

fatalities, it is not a comprehensive measure, and it is necessary to include both the population and economic structure components in governance and the implementation of policy measures in the face of epidemics.

covid19-01270289

The Effect of Educational Intervention Based on Health Belief Model (HBM) on COVID-19 Preventive Behaviors among Dormitory Students (Qazvin University of Medical Sciences)

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Severe acute respiratory syndrome–associated, coronavirus 2 (SARS-CoV-2) has caused a global public health crisis with high rates of infection and mortality. The new coronavirus spreads mainly from person to person. Public places (such as student dormitories) play an important role in the spread of the virus. Adopting preventive behaviors among the residents of these places is very important in managing and controlling the disease. This quasi-experimental study was performed on 100 Dormitory Student covered by two Dormitories who were randomly divided into experimental and control groups. The data collection tool was a researcher-made questionnaire, including demographic characteristics, knowledge, Health Belief Model constructs, and performance measurement that were completed before and one months after the educational intervention by the experimental and control groups. The training program was held in 4 sessions of 50 to 55 minutes in the hall of Dormitory. The collected data were analyzed by SPSS 26 statistical software using Chi-square, independent t-test, paired t-test. Results showed that before the intervention, there was no significant difference between the experimental and control groups in terms of knowledge, perceived susceptibility, perceived severity, perceived benefits, perceived self-efficacy and performance($p > 0.05$). but the one months after the intervention, the experimental group showed a significant increase in all of the constructs of HBM compared to the control group

Keywords: Coronavirus, Health Belief Model, Preventive Behaviour

covid19-01910140

COVID-19 Endangers the Health of Society by Disrupting Social Participation, Home Integrations, and Productive Activities

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Proper social participation and involvement in the daily activities of life increases the feeling of attachment, and increases a person's sense of worth, belonging, and dependence on society. The purpose of this study is to provide insight into the effects of the COVID-19 epidemic on integration into home activities, community, productive activities. In June 2020, the Social Integration Questionnaire (CIQ), which measures integration at home, integration in the community, and integration into purposeful and productive activities, was transcribed with the required demographic information in a web-based format. A total of 461 people (mean age 36.86 ± 5.8 years) completed the social integration questionnaire in a cross-sectional study. The data were analyzed using SPSS software version 22. Comparing the participants score in the Community Integration Questionnaire before and after the COVID-19 pandemic showed that COVID-19 reduced home integration (from 4.6909 ± 2.84 to 3.5938 ± 2.80, t= 11.151 p).

Keywords: Home Integration; Social Integration; Productive Activity

covid19-02080197

COVID-19 Recurrent Cases in Kurdistan Region of Iraq

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Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is behind the recent 2019 coronavirus disease (COVID-19) in the world. Soon later, the outbreak was recognized as pandemic by the World Health Organization. Previous studies on COVID-19 focused on information from the general population. There is evidence of reactivation of SARS-CoV-2 with no specific clinical characteristics to distinguish them from recurrent infections. The reactivation time from SARS-CoV-2 negative to positive is relatively short, ranging from 4 to 17 days. Here, we report two cases of public health workers with a recurrent SARS-CoV-2 infection. The data were collected from medical records of these patients from medical centers of Sulaimani province governorate, and direct phone contact with patients. In this study, epidemiological history, symptoms, and diagnostic tests including RT-PCR, immunological tests of COVID-19, C-reactive protein (CRP) levels, and erythrocyte sedimentation rate (ESR) were analyzed. Both patients showed typical COVID-19 symptoms during the first and second episodes of the disease. The two COVID-19 recurrent cases were confirmed with RT-PCR and immunological tests. The serum levels of IgG, IgM were monitored throughout the study. Findings in this study demonstrate the possibility of reinfection with different existing or novel strains of the virus. The likelihood of reactivation of the existing strain in each patient is less probable due the timing of the episodes of the disease. A genome sequencing approach to differentiate SARS-CoV-2 strains from the patient samples could strengthen these findings. However, more prospecting and retesting of people needs to be achieved not only to control the infection but to track the source of SARS-CoV-2.

Keywords: COVID-19, Recurrent, Kurdistan Region, Reactivation of SARS-CoV-2

COVID-19-Related Health Anxiety in Iranian Health Care Workers

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Introduction: The outbreak of COVID-19 has exposed health care workers to high stress due to the high risk of infection, isolation, caring for critically ill patients, and overwork. This difficult situation leads to mental health problems such as anxiety, fear, stress, insomnia, and depression. One of the psychological issues that may affect health care workers during the outbreak of COVID-19 is health anxiety. Health anxiety is a disorder characterized by a great deal of fear and anxiety about having a serious illness. Health anxiety disorder goes beyond normal health concerns and can seriously affect occupational and interpersonal performance. The present study was designed to determine the level of COVID-19-related health anxiety in Iranian health care workers.

Material and methods: This is a cross-sectional study conducted through an online survey from May 12 to July 12, 2020. The study population included all health care employees working in health care centers in Iran who were serving patients during the COVID-19 outbreak in Iran. Data were collected online through a demographic information questionnaire and the short version of the Health Anxiety Questionnaire. The online questionnaires were created via Google Form and the URL link was sent to health care staff via email or social networking applications such as Telegram or WhatsApp. In total, questionnaires were sent to more than 1,500 health care workers throughout Iran. Data were analyzed using descriptive statistics and statistical tests including Chi-square, Mann-Whitney, and Kruskal-Wallis tests with SPSS software version 23.

Results: 552 health care workers completed and sent the questionnaires. The response rate was about 36.8%. The findings showed that the mean score of health anxiety of these workers was higher than the cut-off point of health anxiety (17.28 ± 8.84) and 58.1% of health care workers had COVID-19-related health anxiety. There was also a significant inverse relationship between health anxiety score and age ($r = -0.13$; $p = 0.002$), work experience ($r = -0.16$; p).

Keywords: Anxiety; Health Personnel; Coronavirus; COVID-19

covid19-02660222

The Relationship between Frontline Nurses' Psychosocial Status, Satisfaction with Life and Resilience during the Prevalence of COVID-19 Disease

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Introduction: Coronavirus disease (COVID-19) has rapidly become a major epidemic threat in the world. Frontline nurses who take care of the COVID-19 patients are exposed to special stress and psychological disorders. The present study aimed to investigate the psychological impact of COVID-19 outbreak on frontline nurses in Iran.

Methods: In this cross-sectional study, 185 frontline nurses taking care of the COVID-19 patients were selected from Rafsanjan, a city in southeastern Iran, from March to April 2020. The data were collected using demographic questionnaire, General Health Questionnaire (GHQ -28), Generalized Anxiety Disorder 7-item (GAD-7), Impact of Event Scale-Revised (IES-R), Satisfaction with Life Scale (SWLS) and Connor-Davidson Resilience Scale (CD-RISC). Data were analyzed using T-test and one-way analysis of variance in SPSS 22 .

Results: 50.3% of participants had psychological disorders. 68.1% of the participants had social impairment, 49.2% had somatic symptoms, 49.7 had anxiety and insomnia, and 18.4 % had depression. In addition, 28.6% of the nurses had GAD and 34.6% had PTSD. 21.1% had one psychological disorder, 21.1% had two psychological disorders, and 16.8% had all three psychological disorders. The results showed that being at risk of coronavirus infection, satisfaction with life and resilience were significantly associated with psychological disorders.

Discussion: The coronavirus disease has significant consequences for the mental health of nurses. The factors affecting the mental health of nurses should be considered to support nurses in crises such as coronavirus. Provision of effective psychological interventions for nurses can be one of the effective solutions.

Keywords: COVID-19, Resilience, General Healt

covid19-02660224

Effect of the COVID-19 Outbreak Mandatory Quarantine on Psychosocial Status of General Population: A Cross-sectional Study in Iran

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Introduction: COVID-19 originated from Wuhan, China in December 2019 and quickly became a global pandemic. Quarantine, one of the most effective protection measures, plays an essential role in preventing the spread of infectious diseases. The COVID-19 pandemic, along with quarantine, can have devastating consequences for individuals' mental and social health. Therefore, this study examined the psychosocial status of individuals during and after quarantine in the COVID-19 pandemic.

Methods: This cross-sectional study was conducted on 714 individuals in the general population during (365) and 3 months after quarantine (349) in southeastern Iran. Data were collected with demographic questionnaire, General Health Questionnaire (GHQ-28), Generalized Anxiety Disorder 7-item (GAD-7) based on an online questionnaire.

Results: All dimensions of general health except somatic symptoms were significantly different in the general population during and after quarantine (p).

Keywords: COVID-19, Quarantine, General Health

covid19-02960294

Public Participation in Increasing the Social Resilience of Informal Settlements against the Covid19 Pandemic

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Over the past few decades, cities have been exposed to many disasters and crises due to improper development planning in various scales, and most of these disasters have been unpredictable, indicating the importance of resilience of communities to deal with the destructive effects of such phenomena. Meanwhile, the outbreak of the Corona virus has become the most important challenge in the "civilized" world, posing a major threat to the most disadvantaged households living in the worst urban neighbourhoods and informal settlements. Therefore, participation and social capital are vital to strengthen citizens' resilience to the Corona pandemic. Therefore, the aim of the present study is to explain the public participation in increasing the social resilience of informal settlements against the Covid 19 pandemic in Zanjan. The research method is applied qualitatively and quantitatively. Data collection was based on specialized survey and documentary methods. The sample size includes 15 experts at universities and research centres. Purposive sampling method was used and structural equation analysis model and path analysis method in PLS software were applied for data processing. The findings indicate that the components affecting social resilience can be divided into four independent variables: prevention, empowerment, participation and advocacy. According to the confirmatory factor analysis model, all observable indicators have a strong relationship between their latent variable, so that, the honesty component of city officials and managers have the most relationship with the latent variable among the indicators of social trust. Among the variables of social cohesion, the highest amount of factor load is allocated to membership in social organizations. Among the components of social bonding, the cooperation of citizens with underlying patients, the formation of non-governmental economic cooperatives against the Covid 19 pandemic, and the appropriate family relationship during the Covid period have the highest coefficient ,respectively. Among the indicators of social interaction, the tendency to communicate through cyberspace was identified as the most important variable. The coefficient of determination of the variable "role of social participation" on the variable "social resilience against coronary heart disease" was "0.853". This means that 85% of the

changes in the dependent variable (resilience) are explained by 4 independent variables (social trust, social cohesion, social bond and social interaction). Therefore, all four independent research variables have been able to simultaneously explain more than 70% of the dependent variables and affect resilience through 17 criteria defined in relation to each other. The remaining 15% is derived from other factors that indirectly affect resilience and affect the research dependent variable. Finally, it can be said that the vulnerable neighbourhoods of Zanjan, moderate the effects of the Corona epidemic, in parallel with the use of participation and thus promoting social resilience.

Keywords: Citizen Participation, Social Resilience, Covid 19

covid19-03010301

Nursing and Midwifery Students' Knowledge and Concerns about COVID-19: A Descriptive-Analytical Study

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Background: With high prevalence and transmission rates, coronavirus disease 2019 (COVID-19) became a global pandemic that has affected almost every country. The COVID-19 pandemic has changed educational trends for all university students, including nursing and midwifery students (NMSs). In the future, these students will play critical roles in healthcare delivery systems. Therefore, assessment of their current knowledge, fear, and anxiety about COVID-19 is important .

Objectives: The aim of this study is assessing knowledge, fear, and anxiety of COVID-19 among NMSs.

Design: This cross-sectional descriptive-analytical study was conducted in October and November 2020.

Setting: Study setting was the Faculty of Nursing and Midwifery of Iran University of Medical Sciences, Tehran, Iran.

Participants: Study participants were all 600 NMSs in the study setting.

Methods: Data were collected using a demographic questionnaire, the COVID-related Knowledge Questionnaire, The Fear of COVID-19 Scale, and the Corona Disease Anxiety Scale. Instruments were provided to students through WhatsApp, Telegram, or email. SPSS software (v.16.0) was used for data analysis.

Results: The study instruments were completely answered by 415 students. Their age was 24.63±4.97 years, on average. Most participants were female (62.2%) and single (76.9%). The mean scores of their knowledge, fear, and anxiety about COVID-19 were respectively

13.41±1.32 (in the possible range of 0–15), 21.93±6.78 (in the possible range of 7–35), and 19.82±12.77 (in the possible range of 0–54) .

Conclusion: NMSs have great knowledge, relatively great fear, and mild anxiety about COVID-19. Flexible educational programs, close monitoring of fear and anxiety, and effective need-based education are necessary for NMSs, particularly during pandemics.

Keywords: Coronavirus Disease, Fear, Anxiety

covid19-03270343

The Study Using Mask and Related Factors Based on Protection Motivation Theory in Qom People in COVID-19 Prevention

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Introduction: At the end of February 2020, the first case of Covid-19 in Iran was identified in Qom and after that it became widespread in most cities. Due to its unknowingness and lack of definitive treatment, it led to the death of a large number of compatriots. Meanwhile, breaking the transmission chain was announced as the only way to prevent and control this disease. Recognizing the factors which affect people's health behavior and modifying it, such as wearing a mask and handwashing, can help reduce COVID-19 transmission. The use of patterns and change behavior theories helps to identify individual characteristics and their environment in which somehow affect behaviors.Therefore, the present study aims to investigate the status of mask using and related factors based on protection motivation theory in the people of Qom during the COVID-19 epidemic.

Method: In this cross-sectional study that was conducted in the April 2020 in the first period of the COVID-19 epidemic, sampling was done by relative classification method and a total of 320 eligible individuals were participated in the study. Inclusion criteria included living in Qom, literacy and voluntary consent to participate in the study. The data collection tool had two parts: demographic questionnaire and researcher-made questionnaire based on protection motivation theory. The validity of the questionnaire was determined through content validity and using the comments obtained from the professionals' panel. The reliability of the questionnaire was assessed by calculating Cronbach's alpha or retest test. During the implementation phase, the questioner was presented in crowded gathering places and data was collected. Finally, the data were analyzed by SPSS 18 software using statistical tests.

Findings : In the present study, 125 people was single and 186 people was married and there was no significant difference between theme in using of mask. 226 people (70%)

were wearing masks and 94 people (30%) did not wear masks and significant relationship was observed between mask using and their job. 125 people (39%) from the target population stated that they always wear masks and 84 people (26%) do often. 72 people (22%) do sometimes and 18 people (5%) never wear masks. Furthermore, a significant relationship was observed between mask using and constructs including the protection motivation, the perceived susceptibility, the perceived severity, the perceived self-efficacy, the response efficiency and fear.

Discussion: People who were more motivated to protect their health and considered themselves more vulnerable and people who assumed the severity of the disease was high and were more confident in their ability to perform health behavior and who were more afraid and considered their behavior effective, were more careful with mask using.

Therefore, it is necessary to provide the essential training for people in this regard, relying on these structures.

Keywords: Maskusing, Protection Motivation Theory, COVID-19

covid19-03290338

Perception, Acceptance, and Hesitancy of the Public Regarding Covid-19 Vaccine and Immunization: A Literature Review

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Objective: To determine the sociodemographic features associated with the public's understanding and acceptance or fear of Covid-19 vaccines. To ascertain the causes that contribute to acceptance or refusal of the covid vaccine.

Background: Developing a vaccine against COVID-19 is widely regarded as a critical method for containing the pandemic. On the other hand, public adoption is contingent on one's view's to accept and perceptions about the vaccine. This literature review aims to determine the factors that influence public acceptance and hesitancy against Covid-19 vaccines.

Method: 22 Articles were searched and selected through PubMed database, Google Scholar database, and Scopus database between January 1st, 2020 to 30th December 2020.

Discussion: The finding indicates that the United States and the United Kingdom have done the most research on the adoption and rejection of the Covid-19 vaccine, whereas China's experiments have the largest citation rate. The literature indicates that the Australian community has the highest acceptance rate, whereas the Netherlands has the highest distrust and hesitancy toward the Covid-19 vaccine.

Conclusion: A pandemic period of the Covid-19 virus is urged the population's needs toward the vaccine but at the same time acceptance rate was varied between each countries population and fear of Covid-19 vaccine demonstrate the conspiracy ideas from some countries. Furthermore, studies are required to be done in the middle east and Africa south and middle America while addressing fear and hesitancy toward the vaccine should be put in the consideration to build trust by the population.

Keyword: Vaccine Acceptance, Vaccine Hesitancy, Covid-19 Vaccine, Coronavirus

covid19-03620362

Gender differences in anxiety and psychological distress among Iranian people during pandemic Covid-19

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The prevalence of COVID-19 is an unprecedented threat to public health. The disease has impressed almost all important economic, political, social and even military aspects of all countries of the world. Therefore, studying psychological effects of this viral disease on different levels of society people are important. This study investigated the effects of COVID-19 on psychological distress and anxiety in men and women of Iran. This cross-sectional study was the first large-scale global study of psychological distress and anxiety in the public society and it was based on participation of people from thirteen countries cooperated in this study during the COVID-19 epidemic. In this article, just the results of Iran section were presented. The sample size for this study was 1480 people and a standard questionnaire named COVID-19 Peritraumatic Distress Index (CPDI) with Cronbach's alpha of 0.82 was used. The data were analyzed using SPSS software version 25. Analysis of the total score of anxiety and mental distress showed that 2.9% of men and only 0.9% of women were in a normal state (questionnaire score less than 28), 51.1% of men and 45.7% of women had mild to moderate degrees of anxiety and mental disorder. 46% of men and 53.5% of women reported severe anxiety and mental distress (scores above 52). There was a statistically significant relationship between age group, gender and monthly income with the total score of anxiety and psychological distress, but there was no statistically significant relationship between occupation, religion and ethnicity with the total score of anxiety and psychological distress. 79% of the participants were female and the rest were male, and more than half of the sample (54%) were under the age of 30. moreover, the majority of participants, i.e. 72.5%, had a university degree. The mean total score of the Anxiety and

Mental distress Inventory was 54.16 (±13.6) for the subjects, the mean score of Mental distress for the women was 55.12 (±16.1) and 52.64 (±15.8) for the men. It can be concluded that most of the participants in the study are in an unfavorable situation in terms of psychological distress and anxiety, but compared to other countries like Indonesia, Egypt, India, Philippines, Thailand, Malaysia and Singapore, Iranian people (especially men) showed a more undesirable state of mental disturbance and anxiety.

Keywords: COVID-19; Anxiety; Iran

covid19-03640365

The Relationship between Quality of Life of Iranian Medical Students and Their Knowledge, Attitudes and Practices regarding COVID-19 in 2020

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Background: COVID-19 pandemic spreading worldwide and poses a threat to physical and mental health and also quality of life (QoL) of the students so present study attempt to investigate Health-Related Quality of Life (HRQoL) and its relation with Knowledge, Attitudes and Practices (KAP) of students of Tehran university of Medical Sciences (TUMS) during this pandemic.

Methods: In this cross-sectional study which conducted between 23 may to 21 June 2020, participants were students in different levels of TUMS completed validate online questionnaire which assessed KAP towards covid-19 and HRQoL. Statistical analysis was performed in SPSS ver. 16, R software ver. 4.0.2. GraphPad Prism software ver. 6.0 was also used to draw the graphs.

Results: A total of 499 viewers completed this questionnaire, only 470 of them included in the study (183 males and 287 females). The mean age of students was 24.2 ±6.84. The overall correct answer rate of the COVID-19 knowledge questionnaire was 74.43% and total score of the HRQoL was 72.50 (14.85). 61.7% of the students were agreed that COVID-19 will finally be successfully controlled, 44.3% had confidence that Iran can win the battle against the COVID-19, and 92.6% agreed that Quarantine will reduce the prevalence of COVID-19. Most of the students adhered to health protocols (60.9% of the students didn't go to crowded places in recent days, 78.1% of them wore masks when leaving their houses, 93.8% washed their hands when they returned home and 92.1% of the students avoided touching their eyes, their mouths and noses as far as possible). About

a relation between HRQoL and knowledge we have a weak positive and unsignificant correlation between them (R=0.05, P=0.27).

Conclusions: TUMS students showed expected levels of knowledge, proper attitudes and preemptive practices regarding COVID-19, whereas COVID-19 outbreak substantially affected the physical and mental health of medical students which require necessary further modifications.

Keywords: COVID-19, Knowledge, Attitude, Practice, Quality of Life

covid19-06030382

COVID-19 Vaccine Intention, Hesitancy and Resistance among Iranian Health Workers: Application of HBM Model

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Background: Healthcare workers play a key role in encouraging and accepting COVID-19 vaccination in the community, especially high-risk groups.

Methods: Present study was a cross-sectional descriptive study at national level which was conducted in 9 provinces of the country in the period of February to March 2021 after approval and obtaining the code of ethics from the Medical Ethics Committee of Zanjan University of Medical Sciences. The sampling method was multi-stage with approximately 3600 individuals (up to 400 people in each province). To describe data from descriptive statistics indicators (Mean-Standard Deviation-Medium-Mode), and to examine the relationship between demographic characteristics and vaccine acceptance rate Chi-square test were utilized, ANOVA analysis was used to determine the predictive factors of vaccine acceptance from the backward regression model and to compare the health belief model among groups (acceptance-doubt-reluctance to receive the vaccine) at 95% confidence level.

Results: More than 62% of the participants intended to receive the vaccine; meanwhile the rate of rejection and hesitation about receiving the vaccine was 18.7% and 19.2%, respectively. Occupational factors, history of hospitalization due to COVID-19, and perceived sensitivity constructs, perceived benefits, perceived barriers, perceived self-efficacy significantly predicted vaccine acceptance. The probability of receiving vaccine was higher in people working in the health centre than those who works in hospital (OR = 1.504). Individuals without history of hospitalization due to COVID-19, probability of vaccination was 2.10 times higher. Also Individuals with higher perceived sensitivity, perceived benefits and perceived self-efficacy were more prone to get vaccination. In the other hand Individuals with higher perceived barriers were less prone to get vaccination.

Conclusions: The results of the present study indicated that the rate of vaccine acceptance among health care workers was relatively good and the constructs of the health belief model in predicting the rate of intention to receive the vaccine preformed appropriately. Due to the relationship between some demographic factors and the rate of acceptance of the vaccine, planning to enhance the rate of admission, especially in hospital staff and comprehensive health centers is recommended

Poster Abstract

covid19-00060010

Why COVID-19 Laboratory Personnel Should Be Tested before Attending the Laboratory: How Even the Most Experienced Personnel contaminate Clinical Samples

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Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has resulted in a pandemic. Early diagnosis and testing of symptomatic individuals and asymptomatic carriers remain essential since the latter group can transmit the virus. Current assays for SARS-CoV-2 detection are mostly based on quantitative real-time PCR (RT-qPCR). However, cross-contamination remains a challenge in RT-qPCR assays. Here, we would like to share the most interesting route of sample contamination in SARS-CoV-2 molecular diagnosis laboratories and the necessity of personnel testing. We set up our molecular diagnosis laboratory three months ago using RT-qPCR. We strictly adhered to biosafety guidelines to ensure personnel safety and avoid cross-contamination of samples. We use (i) two extraction negative controls (EXNC), (ii) one no template control for every 10 samples, and (iii) one negative control. Note that to minimize the probability of contamination, the positive control was prepared last, after each patient 's sample was added to the corresponding tube. After one month and a half, we noticed a slightly positive signal (Cq = 38) in one of the EXNC. Upon repeating the run, both EXNC showed a Cq = 38. We narrowed down the cause to the personnel. Thus, all the personnel were tested for SARS-CoV-2 by the reference laboratory of the Pasteur Institute of Iran. We were astonished when we found that the person who was in charge of extractions tested positive for SARS-nCoV-2. This same person also handled the extraction kits. Thus, a SARS-CoV-2 PCR-negative technician was assigned to perform viral RNA extraction. The results were perfectly satisfactory. How is it possible when the RNA extraction technologist used all necessary personal protective equipment and level 2 biosafety guidelines? Since the SARS-CoV-2 PCR-positive person handled the extraction kits, she contaminated all the buffers and solutions probably by inadvertent touching of her mask or face. What we observed is the trickiest route of cross-contamination in a molecular diagnostic laboratory even when the most experienced user is working. When molecular diagnostic laboratory personnel do not use shields, it is probable that they touch their masks or faces inadvertently. Especially when they work long hours, and the mask becomes wet because of the exhalation, the outer surface of the mask is certainly contaminated. We strongly recommend that all the personnel working in SARS-CoV-2 molecular diagnostic laboratories have to be tested. In fact, personnel of every molecular

diagnosis laboratory should be tested especially for respiratory diseases that can be transmitted through exhalation of infected individuals.   Ethical considerations (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

Keywords: COVID-19, Molecular Diagnisos

covid19-00090064

Effective Manpower Management Strategies in Pandemic Covid-19

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Human resources are always considered as critical components in health service delivery. Effective management of workforce in the Covid-19 epidemic crisis is a key challenge of health system managers. The purpose of this study was to collect and document the experiences and lessons learnt of hospitals affiliated with Tehran University of Medical Sciences (TUMS) of manpower management during COVID_19.

This was a qualitative exploratory research including 22 semi-structured, face-to-face and virtual interviews with TUMS key informants and decision-makers in the management of current pandemic in 2020. Data was analyzed using thematic analysis

Personnel fear of getting infected and transmitting the virus to their families was the most worrying challenge facing managers. The directors and managers' well thought strategies for the crisis included the development of protection protocols, coordination for the provision of personal protective equipment, the use of charitable capacities for spiritual, nutritional and psychological support of staff, appreciation of hospital veterans and volunteers serving in the Corona wards, and being a role model for others as well as financial incentives and their close contact with the staff. The provision of health services is seriously affected by capable human resources. Effective preparation, motivation, communication and retention strategies are highly required for ensuring the outmost engagement from our workforce.

Keywords: Covid 19 ,Workforce, TUMS

Evaluation of the Level of Oxidative Stress: Total Antioxidant Capacity, Total Oxidant Status and Glutathione Activity in Patients with Covid-19

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Background: Covid-19 disease, as a dangerous global pandemic, has led to high morbidity and mortality in all countries. There is evidence for the possible role of oxidative stress in coronavirus disease 2019 (Covid-19).

Objectives: In the current study, we aimed to measure the levels of glutathione (GSH), total antioxidant capacity (TAC), and total oxidant status (TOS) in the serum of patients with Covid-19 .

Materials and Methods: In this case-control, a total of 96 individuals with and without Covid-19 were selected between May and September 2020, and they were divided into four groups, including the hospitalized group in non-intensive care units (non-ICU) (n=35), the hospitalized group in intensive care units with endotracheal intubation (EI) (ICU with EI) (n=19), the hospitalized group in intensive care units without endotracheal intubation (ICU without EI) (n=24) and control people without Covid-19 disease as the control group (n=18) .

Results: The present study revealed that the TOS level was significantly lower in the group of control (P = 0.001), and level of glutathione (GSH) was remarkably increased in the patients' groups (P < 0.001). TAC activity in the non-ICU group of patients had no significant difference in comparison with the control group. However, in hospitalized patients' groups in ICU with and without EI this activity was significantly different from control group (P).

Keywords: Covid-19 Disease, Oxidative Stress, Glutathione (GSH), Total Antioxidant Capacity (TAC), Total Oxidant Status (TOS)

covid19-00140017

The Impact of Citizens' Knowledge and Proper Health Practice in Managing the COVID-19 Epidemic

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COVID-19 pandemic has had the vastest impact on human health on a global scale, which has caused limitations and consequences in medical, social and economic systems. The most common and important strategy for dealing with a communicable disease is a public health approach. This study aimed to assess the knowledge and practice of Qom citizens towards using disinfectants and compared its relationship with geographical distribution of COVID-19 outbreak in Qom, Iran. The study was conducted by a researcher-made questionnaire during April and May, 2020. COVID-19 incidence data for each district of city was obtained from health department of Qom province. Data were analysed using Excel, SPSS and ArcView (GIS) softwares. The majority of the respondents were female (61.5%), married (83.25%), and in the age range of 31-40 (42.75%). The total mean scores of knowledge (out of 10 points) and practice (out of 57 points) were calculated to be 4.4 ± 2.2 and 40.2 ± 7.8, respectively. As to the municipality districts, the highest mean score of knowledge was related to municipality district 1 (5.1 ± 2.4) while the highest mean score of practice was related to municipality district 4 (43.0 ± 7.1). The lowest mean score for both knowledge (2.6 ± 1.8) and practice (36.6 ± 6.9) belonged to municipality district 7. It was found that the highest level of citizens' knowledge (52%) was in the weak range while their practice (56%) was in the good range. According to Spearman's correlation analysis, there was a strong correlation (rho 0.95) between the total mean of knowledge and practice (p).

Keywords: Knowledge; Practice; COVID-19

covid19-00160004

Lived experiences of patients with COVID-19 infection:
a phenomenology study

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Aim: To describe the experiences of patients with COVID-19 infection.

Methods: This qualitative research was conducted using a phenomenological approach, and the participants were selected via purposive sampling. In total, 14 patients with COVID-19 were selected (nine women and five men), aged 20-60 years. Data were collected via in-depth interviews with open questions and through observation. Data analysis was performed using Colizzi's phenomenological approach.

Results: Three themes and nine categories were extracted; the main themes were mental strains, physical manifestations, and coping mechanisms. Mental strains entailed concerns, fears and isolation, on the other hand, physical manifestations comprised nervous, respiratory and gastrointestinal system, and systemic disorders. Coping mechanisms included of religiousity and home remedies categories.

Conclusion: Mental strains were the most important issues in the patients with COVID-19, which was interwoven with concerning physical manifestations. Most of the participants used self-medication and spiritual resource to cope with the disease. Therefore, it is recommended to carry out proper planning by healthcare personnel to psychologically and spiritually support of these patients, while alleviating the physical manifestations of the disease.

Keywords: Coronavirus, Qualitative research, Nurses

covid19-00180039

What are the Factors Responsible for the Change of Women's Sexual Function during the Coronavirus Disease (COVID-19) Outbreak?

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Background: Evidence has shown the destructive effect of pandemics on sexual health. Therefore, beyond the clinical side effect of COVID-19, therapists should not neglect to provide sexual health services during the COVID-19 pandemic.

Materials and methods: The present cross-sectional, descriptive, and analytical study was conducted on 226 married women of reproductive age group, using the convenience sampling method. The data collection tool used in the study was a questionnaire containing two parts: The first part of the data collection form included the factors responsible for female sexual dysfunction (FSD) during the COVID-19 Outbreak and the second part was the Female Sexual Function Index (FSFI).

Results: The mean FSFI total score was 23.61, and the prevalence of FSD using a cutoff value of 26.55 was 54.3%. Among demographic and COVID-19-related variables, the only level of education was significantly positively correlated with the FSFI score. Furthermore, higher age, consumption of alcohol, and having a husband without COVID-19 were marginally associated with higher FSFI scores (P=0.069, P=0.073, P=0.065, respectively) .

Conclusion: The prevalence of FSD is considerably higher in women during the COVID-19 pandemic. This study highlights the importance of health care providers paying more attention to the sexual health status of individuals, especially women, as a vulnerable group.

Keywords: COVID-19; Sexual Function; Coronavirus

covid19-00180040

Design and Psychometric Properties of a Scale to Assess Spiritual Health Scale after the COVID-19 Pandemic

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Background: Assessing the spiritual health status of individuals after the onset of coronavirus requires in the first step a comprehensive definition of spiritual health based on the characteristics of the COVID-19 Pandemic and then designing and testing a Scale that can assess the conceptual structures of the definition provided. Therefore, this study aims to develop and assess the psychometric properties of a Scale to assess Spiritual Health Scale after the COVID-19 Pandemic (SHA COVID-19).

Materials and methods: This study is a mixed sequential (Qualitative-Quantitative) exploratory study. In the qualitative phase, through 14 in-depth semi-structured individual interviews with clerics, specialists in Islamic jurisprudence and principles, specialists in education and health promotion, and using the content analysis approach, Scale items were designed. Purposeful sampling was performed with maximum diversity of experts and enthusiasts in the field of spiritual health. Data analysis was performed by analyzing contractual content using MaxqDA11 software. In the quantitative phase, the validity; face, content, and construct validity were assessed. The reliability was assessed by internal consistency and stability calculation.

Results: Content analysis of the data obtained from interviews led to explaining the concept of spiritual health after the COVID-19 Pandemic in 4 main themes: spiritual health needs, spiritual care characteristics, spiritual care outcomes, and spiritual care challenges. The average content validity index of the Scale was 0.92. Exploratory factor analysis showed 4 factors that explained more than 62.83% of the variance. Correlation of spiritual health Scale score after COVID-19 Pandemic with spiritual health Scale 0.86. Was (p).

Keywords: COVID-19, Spiritual Health, Instrument psychometrics, Factor Analysis

covid19-00190005

Effects of Covid-19 on Higher Education: Challenges and Responses

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With the onset of the Coronavirus outbreak, universities and educational centers across the world were forced to close down campuses and to move toward online education and the use of digital tools. Presently, more than 1.5 billion students around the world have been affected by the closure of schools and universities because of the COVID-19 spreading. The International Association of Universities is an independent global non-governmental organization affiliated with UNESCO, founded in 1950. The association is currently monitoring the impacts of COVID-19 on higher education across the world. This is the first investigation of the impact of COVID-19 on higher education at the global level, with its report released in early May. In September 2019, the second global survey in this regard was conducted with member organizations around the world. The purpose of the surveys was to investigate the basic challenges of universities and higher education institutions in facing this disease of the century in short-, medium- and long-terms, as well as to provide basic solutions to help solve existing challenges.

In the present article, which was performed as a review study via searching for the latest information available on the credible international organizations' websites, including those of the Centers for Disease Control, the International Organization of Universities, the Ministry of Health and Medical Education, and the World Health Organization, the objective was to investigate the impacts of COVID-19 pandemic impacts on higher education and the latest developments on the impact of COVID-19 on universities and training centers, and to provide recommendations and initiatives in this connection. It also provides an opportunity for exchanging information and providing a selection of the latest international news in this regard. Also, in this article, some of the latest recommendations by higher education institutions to continue teaching and learning activities during the social, economic, cultural and health crisis on COVID-19 were explored .

Keywords: Covid 19, Challenges, Higher Education

covid19-00230006

Prevalence of covid-19 Related Anxiety in Psychiatric Clinic of Dr. Beheshti Hospital, Zanjan

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Introduction: Covid 19 virus was detected in early 2020 and caused many infections and deaths. Covid 19 can cause negative psychological impacts, including anxiety. New conditions can increase anxiety in the community, especially in psychiatric patients. Doing research to identify coronavirus anxiety and strategies to deal with this anxiety is essential and can increase community health. In this article, we examine the extent of coronary anxiety and related factors in patients referred to a psychiatric clinic.

Method: The coronary anxiety questionnaire was given to all patients referred to Dr. Beheshti's clinic within a month. About 226 patients were enrolled in the study. The questionnaire consisted of three parts: the first part demographic information, the second part including psychiatric and physical diseases and the third part Includes Corona Disease Anxiety Inventory. SPSS software version 25 was used to analyze the data

Results: 53.1% were female and 46.9% were male. About 11.1% were in the mild range of Covid anxiety, 76.1% were moderate and 12.8% were in the severe type of anxiety caused by this disease. There is a significant relationship between corona anxiety and mental occupation and news follow-up (r = 0.475 and P = 0.001) and also between corona anxiety and having a relative or friend with this disease (r = 0.139 and P = 0.018)

Conclusion: The results of this study indicate that the level of corona anxiety in the community and especially psychiatric patients is high and therefore special attention in this group is very important. Meanwhile, the emphasis on educating people on the need to reduce the follow-up of negative news related to corona can reduce this anxiety. On the other hand, psychological support of family members of a person with corona disease can also be effective in reducing anxiety levels in society. It is worth noting that due to the lack of effect of age and sex on the level of coronary anxiety in these people, the mental health team should pay enough attention to all people in different age and sex categories.

Keywords: Anxiety, Corona, Covid 19

covid19-00230013

Mental Health Promotion Program during the COVID-19 Epidemic in Zanjan in 2020

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Introduction: By December 2019, a virus from the Corona family called COVID-19 has been identified. It affects individuals, patients and medical staff and causes disruption, anxiety and stress. This program can increase people's resilience and adaptation and identify people in need of psychiatric treatment, especially front-line health care workers.

Data and Methods: The following actions have been taken in the three main parts:

A: Mental health promotion program for front-line health care workers

1. Personnel self-care training:

Appropriate educational content, including in the areas of recognizing the types of interpersonal feelings and reactions, how to reduce personnel anxiety, how to deal with their families, improve personnel sleep hygiene, muscle relaxation education, and abdominal breathing, are prepared in the form of a pamphlet and then in the appropriate section was installed in the presence of nurses in all wards. At a convenient time for about 15minutes, staff talked about the issues in these pamphlets in each shift. The pamphlets contents were also republished in the special telegram channel for nurses.

2- Supportive and Balint group psychotherapy:

The support group was held to better understand the individual's feelings, talking about stress relationships, and using collective reflections. Group therapy sessions were held in person and virtually.

3- Introduction of hotlines:

All available local and national hotlines with details in the form of a pamphlet were provided to all wards.

B: Provide training how to manage domestic violence in general emergencies

During the corona pandemic

Domestic violence increases during any crisis, including epidemics. The purpose of this phase was to increase the awareness of first-line emergency personnel on domestic violence

to recognize and respond to signs of domestic violence. The educational content in the form of a pamphlet was provided to the triage doctor and the head nurse of the emergency ward, reminding the subject of its importance. Individuals, especially women who were exposed to domestic violence, were offered first-line support, including social welfare emergencies, psychiatric emergencies, psychiatric clinics, and reputable counseling centers with detailed telephone and address details.

C: General education

In coordination with Zanjan University of Medical Sciences', educational videos were prepared by psychiatry faculty members in the fields of mental health, including how to manage and challenges patients with psychiatric disorders during the coronary period, how to manage coronary anxiety, sleep hygiene, and so on. It was then shown in various media in the province.

Conclusion: This disease had endangered people's mental health status at different levels of society, from patients, health care personnel, families, etc. So with these preventive measures and early treatment, severe psychiatric disorders were prevented to an effective extent

covid19-00260007

The Causes of Alcohol Consumption in Ardabil in a Pandemic Crisis COVID 19

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Introduction: Since the new Corona virus was reported in November 2019, the World Health Organization has designated it as a global health emergency called COVID 19. The virus not only caused casualties but also caused widespread concern and socio-economic impact. One of the unintended consequences of the COVID 19 pandemic, which followed the implementation of social distance and the restriction of social contacts and quarantine, was the increase in alcohol consumption. Alcohol abuse as a social problem is a phenomenon that accompanies society's ability to organize and maintain The existing order is destroyed, the normal functioning of social life is disrupted.

Following the pandemic crisis of COVID19; Unfortunately, based on the evidence and information obtained from some hospitals in the country, cases of poisoning and death due to methyl alcohol were reported. Therefore, the researchers decided to investigate the reasons for alcohol consumption in the city of Ardabil in March 2020, which occurred during the COVID 19 pandemic.

Methods: The present study is a cross-sectional descriptive study. The tool used is 5 parts. The first part is a checklist of background and demographic information, the second part is how to consume alcohol such as reasons for consumption, type of alcohol consumed, source of preparation, etc., the third part is a checklist of accompanying symptoms, the fourth part is laboratory and clinical results and the fifth part is complications. Alcohol poisoning. All patients referred to the emergency department of Imam Khomeini Hospital with the diagnosis of alcohol poisoning in March 2020 were selected by available census method, which included 180 people. SPSS 16 software was analyzed.

Results: Out of 180 patients referred to Imam Khomeini Hospital in Ardabil, 13 were female and 169 were male. The mean age of the patients was 10.69 ± 30.71 years. The majority of people with diploma and higher education were 68.1%, married 37.9%, self-employed 55.5% and without underlying disease 92.3%. 93.4% of people had no history of taking any medication. And 98.1% of family members did not report a history of drug use. The data showed that 51.6% of these people had a history of alcohol use before the COVID 19 pandemic. The type of alcohol consumed in the participants in this study was 88.5% methanol in the amount of 100 to 3000 ml. Eight of these people died and the rest were admitted to the emergency, inpatient and intensive care units. 92.3% of them cited fear of

corona and rumors that alcohol had a protective effect against the corona virus. The most common symptoms in these patients are dizziness, drowsiness, nausea, headache and visual disturbances. 87.4% also have kidney problems caused by consumption.

Conclusion: According to the findings of the study, it can be concluded that the COVID 19 pandemic has far-reaching consequences, including an impact on community mental health, thus highlighting the importance of targeted support planning during quarantine for community members. The need to address and clarify the rumors about the protective effect of alcohol and other things mentioned above is also becoming more apparent.

Keywords: Alcohol; Pandemic; COVID 19

Evaluation of Mental Health and Posttraumatic Stress Disorder in Iranian Medical Studentsduring Outbreak COVID-19

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Background and Objectives: With the announcement of the coronavirus pandemic by the World Health Organization, many people experienced a lot of panic. The disease was a major threat to the physical and mental health of individuals because of the rapid spread and severe mortality. The continued spread and closure of schools and universities can affect students' mental health. This study aimed to investigate the frequency of posttraumatic stress disorder, anxiety, depression, and stress in students of Rafsanjan University of Medical Sciences during the coronavirus outbreak in 2020.

Materials and Methods: This cross-sectional descriptive study was conducted on students of Rafsanjan University of Medical Sciences. The sample size was 351 individuals selected by convenience sampling method based on inclusion criteria. Data were collected by DASS-21 and IES-R. Data were analyzed by SPSS18 using the chi-squared and Fisher's exact tests.

Results: According to the results, the majority of students had moderate anxiety 135(33.6%) and posttraumatic stress disorder 92(26.2%). Depression 118(38.5%) and stress 194(55.3%) were common in most students. Analysis of logistic regression showed a significant correlation between anxiety, stress, depression, and posttraumatic stress disorder.

Conclusion: The results suggest mental health problems among medical students. Therefore

it is recommended to implement psychological counseling programs to reduce these cases.

covid19-00300025

Challenges of Covid-19 Vaccination in Pregnant and Lactating Women

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Introduction: Pregnant women with Covid-19 have a higher risk of mortality than non-pregnant women because they are at greater risk of being admitted to intensive care units and require specialized care, including respiratory support. Some pregnant women also have underlying diseases that put them at greater risk for developing Covid-19 and worsening the disease. Studies show that infection with covid-19 increases the risk of preterm birth, especially in pregnant women with severe illnesses, but to date, congenital defects caused by Covid -19 have not been identified. Covid -19 vaccination is currently underway in most countries, especially developed countries, but pregnant and breastfeeding women face many challenges regarding the risks and benefits of Covid-19 vaccination. The aim of this study was to investigate the challenges of Covid-19 vaccination in pregnant and breastfeeding women.

Method: This article is a review study which was carried out in 2021. Several databases including Iranmedex, Scientific Information Database, Scopus, Google Scholar, Cochran, Elsevier, and Medline/PubMed and WHO (https://www.who.int/), CDC (Centers for Disease Control Prevention, https://www.cdc.gov/), Iranian Ministry of Health and Medical (https: // behdasht.gov.ir) websites, searched to find relevant studies.

Results: Due to the fact that the Covid-19 vaccination study has not been performed on pregnant women, our knowledge in this area is limited. Because mRNA vaccines do not contain any viral particles and our body kills mRNA particles in a matter of hours or days, therefore, these particles are unlikely to reach or pass through the placenta. It is important to note that when a pregnant women is vaccinated, the immunity created can pass through the placenta and help keep the baby safe after birth. Some studies suggest that vaccination of pregnant women can be postponed to the second trimester of pregnancy, when the risk of miscarriage is lower. However, according to the World Health Organization (WHO), given that little information is available to evaluate the safety of the Covid-19 vaccine during pregnancy.Pregnant women who are at high risk for developing Covid-19, such as Healthcare provider or pregnant women who have other co-morbidities that can increase the patient's risk can be vaccinated in consultation with their healthcare professional . According to the American College of Obstetricians and Gynecologists (ACOG), vaccination of pregnant

women should take into account considerations such as the level of virus activity in the community, the potential effectiveness of the vaccine, the risk and severity of the disease in the mother and fetus.

Conclusion: The Centers for Disease Control (CDC), the American College of Obstetricians and Gynecologists (ACOG), and the Society for Maternal and Fetal Medicine (SMFM) agree that new Covid-19 mRNA vaccines can be given to pregnant and breastfeeding women. They can consult with healthcare professional about the benefits and risks of vaccination and make the final decision about vaccination. Although there is no evidence that vaccination is dangerous in pregnant and breastfeeding women, more studies are needed in the future.

Keywords: Pregnant Women, Breastfeeding Women, Covid-19, Vaccination

covid19-00330011

Nursing Leaders' Accountability, The Key Role in Dealing with the Covid-19 Crisis

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Applying the principles and skills of management, including planning, organizing and leadership skills, will greatly help to improve the quality of nursing manager duties. This is even more important during crisis management, such as the Covid 19 crisis. The objective of present study was to express the experiences of nursing managers in the Covid 19 crisis. A qualitative conventional content analysis approach was used to discover the nursing leadership style in covid-19 crisis. The present study was conducted in one hospital in Tehran, Iran. 20 Iranian nursing managers in all nursing management positions such as head nurse, matron and supervisor were interviewed. Semi-structured interview was conducted, using reflective and open ended questioning. Interviews were audio recorded and transcribed. The study was carried out in 2020 while data saturation occurred, no new categories or codes were emerging and the study questions were answered. Credibility and conformability were established through member checking. The report of the analysis was returned to the participants in order to get the assurance that the researchers had portrayed their real world in codes and extracted categories. Four main themes were emerged from data analysis including: "managers as role model", "full accountability", "Being in constant challenge", and "post disaster growth". Nursing management is one of the activities that the manager must be constantly aware of the activities of his subset. This requires a constant presence in the workplace and communication with nursing staff. Also, in times of crisis, the manager, in addition to having scientific ability, must be responsible and accountable. These two factors will lead to crisis management.

Keywords: Nursing Leaders, Accountability, Covid-19

covid19-00340012

Perception of Caring Needs Among Family Caregivers of COVID-19 Patients: A qualitative Study

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Background: Family caregivers of patients with COVID-19 face many challenges that affect their physical and mental health. The aim of the present study was to explore experiences of family caregivers of patients with COVID-19.

Methods: This phenomenological study was performed based on 13 family caregivers who had experience in home caring for patients with COVID-19. Data were collected through purposive sampling with in-depth semi-structured interviews. The Colaizzi's 7-step method was used to determine themes. The MAXQDA10 software was used to manage qualitative data analysis.

Results: Thirteen family caregivers participated. Five main themes describe family caregivers' experiences of caring for patients with COVID-19: nature of the disease; unmet needs; unpleasant physical, psychological, and social experiences; care facilitators and positive experiences .

Conclusion: Information and financial support for COVID-19 should be provided to family caregivers. Also, community members should embrace patients and family caregivers and reinforce the positive experiences of caregivers.

Keywords: Family Caregivers, COVID-19, Experiences

Nutritional Response of the Health System to the Covid-19 Crisis

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Background and Objectives: Corona epidemic, faster than expected, posed a serious and borderless threat to the health and safety of the international community and focused the health system on managing and increasing hospital resilience. Sanctions, limited drug resources, unprepared infrastructure, and a lack of serious experience in controlling the disease have given the crisis complex dimensions. On the other hand, the contradictory information on nutrition in the prevention and treatment of coronation encouraged the public mind. At the same time, economic fluctuations that shrinked the table of low-income households and disrupted food security in the community necessitated a national response.

Method: This qualitative study was performed by analyzing the content of documents related to the corona pandemic. First, electronic sources of correspondence and instructions related to the nutritional management of Covid-19 disease were identified. All multimedia files, including text, video and related audio, were collected in the period from December 2020 to February 2021 through a search in the office automation system of the University of Medical Sciences and by referring to the website of the Ministry of Health. The four JUPP criteria were used to select the documents, and after multi-stage screening, 11 documents were finally selected.

Results: The nutritional response to the Covid-19 crisis was assessed in three phases of prevention and preparedness (together), coping and finally rehabilitation. The approach of the health system in the phase of coping with online nutrition counseling with an average of 1450 cases per day, self-care training, training through cyberspace and reducing the pressure on medical centers and in the rehabilitation phase while continuing previous strategies, direct food support to vulnerable households in The field of food security was focused.

Conclusion: Gradually, the structure created for the use of the media, the online nutrition counseling system and the Shaheed Soleimani project were able to increase public access to accurate nutrition information.

Despite the formation of direct but limited food support, point-to-point inflation rates and fluctuations in the availability of some items have endangered the food security of low-income households. Capacity building is recommended in order to provide conditions for active participation of all groups and use of capacities in food support.

Keywords: Covid-19, Food Security, Nutrition, Vulnerable Household

Using RNAi against mRNA of N Gene to Prevent mRNA Translation in SARS -CoV-2

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Introduction: RNA interference (RNAi) strategies include double-stranded RNA (dsRNA), small interfering RNA (siRNA), short hairpin RNA (shRNA), and microRNA (miRNA). SARS-CoV-2 is the seventh member of the family coronaviruses, which is the beta-CoV with over 70% match in genetic sequence to SARS-nCoV. There are numerous drugs currently being tested which include antiviral (remdesivir, favipiravir, lopinavir, ritonavir, and arbidol), anti-malarial (hydroxychloroquine), and anticancer (interferon-alpha 2b) agents. These drug candidates are undergoing clinical trials, and their efficacy against SARS-CoV-2 has yet to be confirmed. Under such a situation, siRNA based treatment can provide a real solution in combating COVID-19.powerful tool not only for studying gene functions, but also for therapeutic uses. The goal of this research is to use a designed siRNA to give pneumonocytes a map for repressing mRNA of the SARS-CoV-2 to prevent the synthesis of the SARS-CoV-2's Protein. This will be the first step towards Treating SARS-CoV-2 disease. In this study, we design siRNA against N gene which Packages the positive strand viral genome RNA into a helical RiboNucleocapsid (RNP) and plays a fundamental role during virion assembly through it is interactions with the viral genome and membrane protein M, Plays a key role in enhancing the efficiency of subgenomic viral RNA transcription as well as viral. In this study we suggest 3 siRNA deliver in cell at the same time to enhance the chance of targeting N gene if mutation will be occur.

Method: At first we design potential siRNAs for N gene of SARS-CoV-2. We firstly collected the representative SARS-CoV-2 genome. Next, we design siRNAs AND shRNA BY using SSD database.

Results: Single-targeting therapies for covid19have been considered to be an effective approach, and RNAi strategy is a better method for gene suppression, and there are many siRNA drugs in clinical trials which two or more genes inhibition simultaneously. At the same time, structurally modified siRNAs had been widely used in the RNAi therapeutics development, especially long double-stranded RNAs (dsRNA) were designed for carrying two or more siRNA sequences That targeted more than two parts of one mRNA or more than one mRNA. Current studies have shown that once long dsRNAs get into mammalian cells, they can be used as Dicer's substrates for siRNAs processing, then the corresponding genes

may be possibly inhibited effectively by siRNAs siRNAs which designed by SSD has shown in table 1 .

Conclusions: This paper has described that siRNA has the potential for treating viral diseases. In this method, 3 siRNA were designed to enter the pneumocyte at the same time, so if there was a mutation in the genome of the virus, they can manage the whole process of treatment. siRNA therapeutics can be used as a reliable treatment for viral diseases and cancer. Another important challenge that can contribute to the success of this procedure is the proper delivery of siRNA to the cell, which must be tested in vitro and in vivo. Extra researches for choosing the best candidate for siRNA is needed.

<Monovalent_shRNA

TGCACAATTTGCTGACAGGAAGGCAAATTGTGCAATTTGCGGCCACTCTCTGGCCGCAAAT

<Bivalent_shRNA

TGCACAATTTGCTGACAGGAAGGCAAATTGTGCAATTTGCGGCCACTCTCCATGGCAAGGAAGACCTTAAATTTGACAGGAAGAATTTAAGGTCTTCCTTGCCATGCTCTCTGGCCGCAAAT

<Trivalent_shRNA

TGCACAATTTGCTGACAGGAAGGCAAATTGTGCAATTTGCGGCCACTCTCCATGGCAAGGAAGACCTTAAATTTGACAGGAAGAATTTAAGGTCTTCCTTGCCATGCTCTCGACCCCAAAATCAGCGAAATGCATGACAGGAAGTGCATTTCGCTGATTTTGGGGTCCTCTCTGGCCGCAAAT

Gene name: N GENE

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POSITION:903

Sense RNA: GCCGCAAAUUGCACAAUUUGC

Antisense RNA: AAAUUGUGCAAUUUGCGGCCA

RESULTS:

Delta Gibbs: 8.700 => Functional siRNA

POSITION:902

Sense RNA: GGCCGCAAAUUGCACAAUUUG

Antisense RNA: AAUUGUGCAAUUUGCGGCCAA

RESULTS:

Delta Gibbs: 7.100 => Functional siRNA

POSITION:177

Sense RNA: UGGCAAGGAAGACCUUAAAUU

Antisense RNA: UUUAAGGUCUUCCUUGCCAUG

RESULTS:

Delta Gibbs: 6.800 => Functional siRNA

Keywords: RNAi, SARS-COV-2, N Gene

covid19-00500086

Risk Perception and Information Seeking Behaviour:
A Case Study from Maragheh

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Background and Objectives: Risk perception is one of protective behaviours determinants and can be shaped by various information sources. This study aimed to investigate the risk perception of COVID-19 and information seeking behaviour and their relation among Maragheh population, a city in Northwest of Iran.

Methods: A rapid assessment was conducted and data was collected via a self administered questionnaire in 2020. A web-based questionnaire with 16 questions was designed and 383 people answered to the online questions in 3 days. Chi-square, ANOVA and Pearson correlation tests were used to analysis using SPSS 23 software.

Results: Risk severity and sensitivity was assessed. 31.4% of respondents predicted that they will be infected with the virus and 20.1% of patients will die from disease. 65% of respondents evaluated side effects of the disease serious and very serious. 37.9% used different types of media and information networks for 1-3 hours per day. News and statistics related to covid-19 were searched by 65.9% at least 1 to 5 times per day via various information sources. Using rate of information was correlated statistically with risk perception (p=0.01, r=0.14) .

Conclusion: providing reliable information about covid-19 should be focused by formal media and virtual networks regarding to the relation between risk perception and information investigating.

Keywords: Risk Perception, Information, Covid-19

covid19-00570056

Nursing Staff Rest Room Status and the Incidence of COVID-19 of Nursing Staff in Alborz Hospitals (Lessons learned)

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Introduction and Aim: Health workers are at higher risk of being infected with SARS-CoV-2 than the general population. Data collected by the World Health Organization (WHO) global surveillance for COVID-19, estimated that approximately 14% of COVID-19 cases reported are among health workers. Transmission of the SARS-CoV-2 virus to health workers has been documented to occur in both acute care and long-term care settings; also potentially associated with exposures to infected co-workers in common areas and break rooms. Due to the fact that nurses 'rest rooms are considered as a place only for rest and nutrition, and due to the lack of previous experience of a respiratory disease epidemic, nurses' rest rooms lacked proper physics and ventilation. Increased incidence of nursing staff can lead to a shortage of specialized personnel in an epidemic crisis. At the beginning of the epidemic, most attention was paid to the provision of personal protective equipment for staff, while contaminated clothing changing areas and nursing staff feeding and resting areas can lead to contagious transmission. The aim of this study was to investigate the effect of continuous monitoring on staff resting place in reducing the incidence of nursing staff in Alborz hospitals struggling with COVID-19 disease.

Method: This descriptive study was performed in 2020 in hospitals of Alborz University of Medical Sciences. In this study, the nursing management team first visited the rest rooms of all hospitals and the rest rooms were checked for infection control and environmental health standards and the amount of ventilation with checklist extracted from the instructions of the Ministry of Health, then weaknesses extracted and reported to hospitals. After one month, the rest rooms were re-checked according to the checklist.

Result: The results of comparison showed that out of 19 hospitals, 3 hospitals received scores above 70% in review, 10 hospitals scored between 50 and 70% and 6 hospitals scored less than 50%. Evaluation of the number of infection in nursing staff showed that the incidence was higher in the centers that scored less than 50% than other centers.(Comparative images before and after monitoring and statistics of affected nursing staff before and after monitoring

are available if the article will be accepted).

Conclusion: Optimization of nursing staff rest rooms will be effective in reducing infection transmission between nursing staff.

Keywords: Covid-19, Effective Factors in the Incidence of Nursing Staff, Infection Control in Hospital

covid19-00590028

The Association between COVID-19 and Cesarean Section: A Meta-Analysis Study

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Background: The meta-analysis has been conducted to assess the association between COVID-19 virus and the risk of cesarean section based on observational studies. Therefore, this systematic review and meta-analysis was conducted regarding this issue.

Methods: We identified all publications up to January 2021 in databases of PubMed, Scopus and Web of Science. In addition, we reviewed gray literatures and conference proceedings. The pooled odds ratios (OR), and 95% confidence intervals (CI) were measured from eligible studies were used as random effect estimates of association among studies. Heterogeneity testing using I2 statistics was performed to assess variance between the studies.

Results: The pooled estimates of OR didn't report a significant association between COVID-19 and the risk of cesarean section, respectively (OR = 2.02, 95% CI = 0. 4 to 3.64). There was low heterogeneity among the studies reporting the risk of cesarean section among children based on OR (I2=12.7%, P=0.333). The P values for Begg's and Egger's regression were 0.573 and 0.555, respectively .

Conclusion: The findings showed that although the odds ratio of increasing the rate of cesarean section in women infected with COVID-19 was more than double those of women without infected with COVID-19, but this association wasn't significant. It is suggested that in order to further investigate this relationship, large cohort studies with control of confounding variables should be performed in the future.

Keywords: Coronavirus; Cesarean Section; Meta-Analysis

covid19-00590031

Are anxiety and Depression Associated with Pandemic of COVID-19 among High School Students?

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Background: To the best of our knowledge, the study about the mental health status (depression, anxiety and stress) among high school students during COVID- 19 has not been performed in Iran. The novel Coronavirus (COVID-19) is begun in Wuhan, China, and has spread worldwide, resulting in a large number of hospitalizations and deaths. This study was performed to investigate the mental health status of students during the epidemic of COVID-19. This cross-sectional study was performed in the west Iran, 2020.

Methods: This cross-sectional study was performed among high schools students (12-18 years) from April until June 2020, in Hamadan City, the west of Iran. In total, 2852 students contributed in the present study. Depression Anxiety and Stress Scale 21 (DASS-21) was used in this study. Statistical analyses were conducted in STATA 14 with a significant level 0.05 .

Results: The present study showed that although stress status was normal among most high school students (70.3%), but the status of anxiety and depression was high. The boys had reported higher proportion of normal status of depression (51.62% vs. 44.97%), anxiety (31.71% vs. 26.91%), and stress (77.66% vs. 66.10%) compared to the girls. Also students in grades 7-9 had reported more percentage of normal status in all three dimensions of stress, anxiety and depression .

Conclusion: These findings suggest that policymakers and other authority's needs to pay more attention to psychological health among high school students while combating COVID-19.

Keywords: Mental Health; Depression; Anxiety; Stress; COVID-19; Iran

covid19-00590038

Pregnancy Outcomes Pregnancy Outcomes among Symptomatic and Asymptomatic Women Infected with COVID-19 in the West of Iran: A Case-Control Study

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Background: The purpose of this study was to investigate pregnancy outcomes among symptomatic and asymptomatic women infected with coronavirus disease 2019 (COVID-19) in the west of Iran. Materials and methods: In this case-control study, 45 pregnant women infected with symptomatic COVID-19 were compared with 45 pregnant women infected with asymptomatic COVID19. The cases included women were referred for delivery to hospitals of Hamadan Province and infected with COVID-19-related symptoms. The diagnosis of COVID-19 was based on the results of real-time reverse-transcriptase polymerase-chain-reaction (rRT-PCR) detection. The control group included asymptomatic women who were referred for delivery to hospitals in Hamadan Province infected with COVID-19. Data were collected by a checklist. For the data analysis, the Stata version 12 was used (StataCorp, College Station, TX).

Results: The odds of cesarean delivery in symptomatic women was more the fourfold higher (OR ¼ 4.12, 95% CI (1.7, 10.05), p ¼ .002). Moreover, the odds of LBW was significantly higher in symptomatic women (OR ¼ 2.1, 95% CI (1.2, 6.29), p ¼ .035).

Conclusions: Our findings showed that cesarean delivery and LBW were significantly higher in symptomatic women compared with asymptomatic women. In areas with high COVID-19 pandemics, the performance of the PCR test is recommended for all pregnant women upon admission for delivery.

Keywords: Pregnancy; COVID-19; Pregnancy Outcomes

covid19-00620083

Knowledge, Attitudes and Performance of over 15-year Old Miandoab Residents toward Prevention of Covid-19

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Introduction: Covid-19 infection is a health threat. WHO confirmed covid-19 pandemic as an international concern due to rapid extend. The virus is mostly extent throughout near contact and spread out breathing droplets when covid-19 carriers cough, sneeze or talk. So, this study was conducted to evaluate knowledge, attitudes or beliefs and performance of individuals toward prevention of Covid-19.

Method: This cross-sectional study was conducted on 300 individuals over 15-year old. Data collected by a self-administered questionnaire and data described by mean ± SD, number and percentage using SPSS25 .

Result: The mean age of individuals was 31.0 ± 1.6 years, ranged 13 to 68 years old. The average score of knowledge, belief and performance toward prevention of Covid-19 out of 100 were 67.49 (SD=7.44), 57.95 (SD=7.18) and 45.20 (SD=4.16) respectively. Among all respondents, 72.2% always worn face mask; 8.7% didn't use the face mask due to breathing difficulty; 46.1% confirmed hand washing for 20 second as a best way of prevention of infection; 69.6% considered quarantine to cut the corona transmission chain; 15.7% avoided quarantine because of feeling depression and 10.4% avoided quarantine as they believed in destiny (if it was destiny, I would be infected by Covid-19).

Conclusion: There is still room to increase beliefs of people toward preventing Covid-19 infection by removing superstitions and increase performance of society on prevention behaviour.

Keywords: Covid-19, Knowledge, Attitude, Performance

covid19-00650033

Coronavirus Anxiety and Resilience in Iran: A Cross-Sectional Online Survey Among Healthcare Workers and Non-Healthcare Workers

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Background: Healthcare-workers is at the forefront of the fight against disease and undoubtedly have the greatest responsibility and burden of stress. They are under severe physical and psychological pressure.

Objectives:This study aimed to compare the anxiety caused by corona and resilience in the Healthcare workers and non-Healthcare workers.

Method: This was a cross-sectional study carried out using an online self-administered questionnaire. The sample consisted of 102 Healthcare worker and 123 non-Healthcare worker who completed the questionnaire on social networks from March 1 to 9, 2020. The participants were assessed using the CD-RISC resilience scale (Connor-Davidson resilience scale) and Corona Disease Anxiety Scale (CDAS).

Results: The COVID-19 had led to significantly higher anxiety in Healthcare worker regarding physical symptoms in comparison to those non-Healthcare worker (p=0.037). Also, the Healthcare worker had raised a level of total CDAS score (p=0.029). The total score of CD-RISC was also 90.6±13.9. Among the non-Healthcare worker which was 6.5 scores higher than Healthcare worker (p=0.036), There was a significant negative correlation between CDAS and CD-RISC scores in both groups.

Conclusion: Our finding shows that there is a significant inverse relationship between anxiety level caused by the pandemic of COVID-19 and the resilience in both groups of Healthcare workers and non-Healthcare workers during the pandemic.

Keywords: Healthcare Workers, Resilience, Anxiety, COVID-19

covid19-00650034

Online Balint Groups in Healthcare Workers During COVID-19 Outbreak in Iran: A Pretest Posttest Study

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Objective: This study was performed to examine the effect of Balint group work on resilience and Corona Ddisease anxiety, among medical groups dealing with the coronavirus crisis.

Methods: In this quasi-experimental study with a pre-test post-test design without control group, 31 health care workers from coronavirus referral centers in Iran, were enrolled. Balint groups were held virtually via Skype. Corona Disease Anxiety Scale (CDAS) and Connor-Davidson resilience scale (CD-RISC) were used at the beginning and the end of the intervention to collect data.

Results: We found a significant difference between coronavirus anxiety scores.

Keywords: Online Balint group work, Anxiety, Resilience, COVID-19

covid19-00650043

Grief Experience after Deaths:
Comparsion of Covid-19 and Non-Covid-19 Causes

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The grief caused by loved ones' death causes grief is a global phenomenon. The Covid-19 pandemic caused significant changes in human lifestyles and the experience of grief. The purpose of the present study was to compare grief experiences in the deceased's relatives caused by Covid-19 and non-Covid-19. Seventy five first- and second-degree relatives of the deceased infected with Covid-19 (n = 33) and non-Covid-19 (n = 42) in a Gorgan hospital in northern Iran were included cross-sectional study using convenience sampling. Data were collected using the GEQ-34 grief experience questionnaire and demographic variables and questions related to funeral and burial. The results revealed that the deceased's burial quality caused by the Covid-19 group was significantly lower (p = 0.035). However, the feeling of the Covid-19 label is significantly higher (p).

covid19-00650044

Experience of Iranian Healthcare Workers with Participation in a Balint Group work on the the Covid-19 Disease Crisis: A Qualitative Study

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Introduction: In the crisis of the outbreak of Covid-19 disease, medical staff are at the forefront of the fight against this disease. Undoubtedly, they have been under work pressure during this long period, and especially the anxiety symptoms at the beginning of this crisis. One of the useful interventions in reducing stress and burnout of these people is the Balint group work (team work for healthcare worker). Therefore, a study was conducted to investigate the experience of Iranian health care providers from participating in the Balint group work in the coronavirus crisis with a qualitative approach.

Method: The present study was conducted qualitatively using a descriptive phenomenological approach. The sampling method was purposive and the sample size included 9 healthcare worker Semi-structured interviews were conducted based on the research questions with the health care worker participating in the Balint group work. After conducting the interviews, the data were analyzed using the 7-step colaizzi method.

Resualt: Participants' experiences of participating in the ballet group were categorized into three main themes, each of which included several sub-themes. 1) Goals and expectations of participating in a group with sub-themes (familiarity with the treatment model, learning and gaining experience and relief from stress). 2) Positive outcomes with sub-themes (sharing experiences and emotions, acceptance and positive feedback, empathetic experience, resolving personal conflicts, increasing knowledge and skills, interdisciplinary interactions, maintaining well-being and quality of working life). 3) Suggestions with the theme of adopting a comprehensive view and procedure were discovered.

Conclusion: The present study revealed new and different dimensions of the concept of Balint group work; These concepts are based on the Iranian context and culture. Which emphasizes the need for in-depth explanation of the lived experiences of these health care providers by psychologists and specialists, creating methods and opportunities to strengthen and improve the quality of these groups and effective solutions based on the themes of the present study.

Keywords: Experience, Iranian Healthcare Workers, Balint Group work,Covid-19, A Qualitative Study

http:// covid19.zums.ac.ir

covid19-00650049

Evaluation of the Covid-19 Pandemic Effect on the Development of Somatic Symptoms in Patients with Mood Disorders: A Case-Control Study

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Objective: Somatic symptoms are one of the most common complaints among patients with psychiatric disorders, and considering as one of the most common psychiatric disorders in the new coronavirus pandemic. This study aimed to evaluate the effect of the Covid-19 pandemic on the physical symptoms in patients with mood disorders and compare it with healthy individuals.

Methods: In this case-control study, 67 patients with mood disorders were referred to the psychiatric clinic of 5 Azar Hospital in Gorgan, who met the inclusion criteria, and 68 healthy individuals as control group were entered into the study. For all participants after informed consent, a demographic information questionnaire was completed along with Screening for Somatic Symptoms-7 (SOMS7) and Patient Health Questionnaire-15 (PHQ-15), and the data were analyzed by SPSS software version 25.

Results: The mean score obtained for the SOMS-7 questionnaire for the group of patients with mood disorders and the control group was 32.37 ± 8.19 and 35.42 ± 11.3, respectively. The mean obtained for the PHQ-15 questionnaire for the mood disorders group and the control group was 8.56 ± 5.93 and 5.86 ± 4.63, respectively. In the mood disorder group, 26.9% of patients had no risk for physical symptoms, 31.3% of patients had a low risk, 25.4% of patients had a moderate risk, and 16.4% of patients had a high risk for physical symptoms. The statistical test showed that although the risk of physical symptoms was high in both groups, this rate was higher in the group with mood disorders and there is a significant difference between the two groups (P).

Keywords: Mood Disorders, Covid-19, Physical Symptoms Disorder

covid19-00680035

Predisposing Risk Factors for COVID-19 Infection: A Case-control Study

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Background: The Covid-19 epidemic in 2019 has created many public health problems. Literature that focuses on the risk factors of this issue is limited especially in developing countries. This study proposed to examine the risk factors of COVID-19 infection in the west area of Iran.

Methods: This case-control study was conducted from February to April 2020 in Nahavand city in Hamedan Province, west area of Iran. Cases were all patients who were tested positive for coronavirus and the controls included people who had clinical signs consistent with COVID-19, but their test results were negative. Two controls were selected for every cases. Multivariated logistic regression was applied to evaluate the effects of epidemiological aspects on the incidence of COVID-19.

Results: Significant risk factors for COVID-19 infection based on the multivariable logistic regression model were male gender (OR=1.82, P=0.0.15), age group over 60 years (OR=2.04, P=0.017), living in urban areas (OR=1.79, P=0.018), being married (OR=2.08, P=0.022), having history of contact with the corona patients (OR=5.61, P=0.009), and comorbidities (OR=1.78, P=0.031).

Conclusion: This study highlighted the factors associated with the occurrence of COVID-19 infection. These findings may help guide recommendations for the protection of high-risk groups.

Keywords: Coronavirus; Covid-19; Epidemiology; Incidence; Iran

covid19-00680036

Socio-Economic Inequality in Global Incidence and Mortality Rates from Coronavirus Disease 2019: an Ecological Study

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Background: Coronavirus disease is an infectious disease caused by a newly discovered coronavirus. Epidemiological and clinical features of patients with COVID-19 have been examined but Socio-economic aspects of the issue have been less studied. Thus this study aimed to identify the role of human development index (HDI) in the incidence and mortality rates of COVID-19 worldwide.

Material and Methods: Information of the incidence and mortality rates of COVID-19 was obtained from the Worldometer and data about the HDI 2019 were obtained from the World Bank database. The correlation between incidence, mortality rates, and the HDI parameters were assessed using linear regression. We calculated concentration index (CI) to measure socioeconomic inequality in COVID-19 related mortality & incidence .

Results: linear regression analysis showed a direct significant correlation between the incidence and mortality rate from COVID-19 and HDI at the global level. The concentration index was positive for incidence rate (0.62) and mortality rate (0.69) of COVID-19, indicating the higher concentration of the rates among groups with high HDI.

Conclusion: The high incidence and mortality rates of COVID-19 in countries with high and very high HDI are remarkable which should be the top priority of interventions for global health policymakers. Also, the health programs should be provided to reduce the burden of this disease in the regions with high incidence and mortality rates of COVID-19.

Keywords: COVID-19; Incidence; Mortality; Human Development Index; Inequality

Predictors of Death in Patients with COVID-19:
A Cross-Sectional Study in West of Iran

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Background: The prevalence of COVID-19 as a biological disaster has become a clinical threat to public health all over the world and is still intense and worrying. The purpose of this study was to evaluate the predictors of COVID-19 mortality in Hamadan province in western Iran.

Materials and methods: In this study, we included all laboratory-confirmed COVID-19 cases with known treatment outcomes in Hamadan province, Iran, between 20, 2020, to May 10, 2020. Demographic, clinical, laboratory data, and treatment outcomes were extracted from electronic medical records and compared between survived cases and patients with death outcome. Univariable and multivariable logistic regression model were used to determine the predictors of death.

Results: From 749 investigated patients, 77 patients (10.28%) were died during the treatment. The Mean age of patients was 53.97±19.04 years. Multivariable logistic regression showed that males had 2.07 fold higher odds of death (P=0.007). Those with 60 years old and more had 6.49 fold higher odds of death (P=0.001). Patients with an underlying disease had 7.14 fold higher odds of death (P).

Keywords: Coronavirus, COVID-19, Epidemiology, Mortality, Iran

covid19-00700055

Anxiety Levels among Iranian Health Care Workers during the COVID-19 Surge: A Cross-Sectional Study

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Background: The recent surge in COVID-19 cases has exposed Health Care Workers (HCWs) to a wide range of psychological stressors and predisposed them to anxiety-related disorders. Here, we investigated the anxiety level in this population.

Materials and Methods: This multi-center, cross-sectional study was performed on 1038 HCWs in 14 hospitals during the COVID-19 pandemic. Beck Anxiety Inventory (BAI) was used to measure the level of anxiety in this population .

Results: The mean age of participants was 36.30±8.23 years old. Most participants were 31 to 40 years old (43.2), female (87.6%), and nurses (49.5%). The BAI scores for the participants were in a positive skew distribution, with a score range of 0-63, a median of 12, and a mean value of 15.30±11.43. Of the 1038 hospital staff, 411 (39.6%) had moderate to severe anxiety. The anxiety level was significantly higher in health care workers ≤40 years old, women, and nurses. Gender, age, and working positions had the most relation with anxiety, respectively

Conclusion: It seems that HCWs experienced a high level of anxiety in the COVID-19 outbreak. One of the important measures in each epidemic is doing supportive care to maintain the mental well-being of HCWs, especially in higher-risk groups, including younger HCWs, women, and nurses.

Keywords: Coronavirus Disease of 2019 (COVID-19); Health Care Worker; Anxiety Level; Beck Anxiety Inventory (BAI); Iran

Combination of Virtual Flipped Classroom Format and Case-Based Discussions to Enhance Active Learning in Faculty Evaluation System's Course during the COVID-19 Pandemic: An Action Research Study

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Background: Selecting the best method of teaching is so important to improve the teaching as well as learning of students. In the meantime, due to the spread of COVID-19 worldwide, a large number of universities had to close their campuses. To maintain teaching and learning during this disruption to the traditional teaching, most universities have adopted online teaching model. The current study aimed at investigating the efficacy of Virtual Flipped classroom format and Case based Discussions to enhance active learning in Faculty evaluation system's course of PhD Medical Students in Shahid Beheshti University of Medical Sciences during the COVID-19 Pandemic.

Method: This study was conducted by action research method. Daily communications and monthly joint meetings were held from November 2019 to July 2020 for planning and management. The participants were PhD Medical Education students on Faculty evaluation system's course. In order to run a case-based virtual flipped classroom, three steps were designed and implemented, 1- Designing case-based scenarios focusing on faculty evaluation systems in universities in video and podcast formats, 2- Designing discussion forums about the evidence published regarding faculty evaluation systems in reputable scientific journals, 3- Online classes on sky platform. In the first step, students in two-person groups analyzed faculty evaluation system of one of the top universities of the world and presented the method of implementing it in our context as podcasts and text files. Other students, while listening to these podcasts wrote important points in text.

Results: The results showed that students were able to analyze the regulations for the promotion of faculty members of the Ministry of Health and Medical Education and express its strengths and weaknesses. They were able to design and implement a project entitled "Explaining the perception and Viewpoints of the Faculty Members and Students of the impact of COVID- 19 on the Faculty evaluation system in one of the medical sciences fields". They also were able to address the required changes in faculty evaluation system in the area of COVID -19 and provide the basic strategies in order to preserve the validity and reliability of the evaluation.

Conclusion: Virtual flipped classroom along with case-based assignments was very

applicable in providing faculty evaluation course and has introduced learners to the experiences and evidence available on faculty evaluation and how to apply the obtained knowledge in practical situations.

Keywords: Virtual Flipped Classroom, COVID 19, Faculty Evaluation System

Iranian Nurses' Resilience and Related Factors During the COVID-19 Pandemic

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Introduction: In the event of a sudden pandemic, nurses are at the frontline of the crisis more than any other healthcare professionals. This study aimed to determine the factors affecting the resilience of Iranian nurses during the COVID-19 pandemic.

Materials and Methods: In this web-based cross-sectional study, after the ethics committee confirmation (IR.ZUMS.REC.1399.251), 1,025 nurses were studied by submitting the Connor-Davidson Resilience Scale (CD-RISC) online questionnaire. Data were collected during November 2020 using social networks from nurses working in hospitals across the country and analyzed by descriptive statistics (Frequencies, Mean and standard deviation) and multiple linear regression with SPSS Ver.20 software. The significance level was 0.05 .

Results: The mean (SD) of the total resilience score of nurses was 68.95 (12.76). Multiple linear regression analysis found age ($p=0.004$, $\beta=0.224$); gender ($p=0.046$, $\beta=-0.061$); role (p).

Keywords: Resilience; COVID-19; Nurses

covid19-00770057

The Psychological Impact of the COVID-19 Pandemic on Medical Students in Iran: Depression, Anxiety, Stress

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Aim: This study aims to determine the mental health status (depression, anxiety, and stress) in Iranian students during the COVID-19 pandemic.

Methods: In this online cross-sectional study, the sample consisted of 409 volunteer students in who study at Zanjan University of medical sciences. An anonymous online questionnaire was applied for collecting the data, including two sections. The first section was about the demographic characteristics of the participants, and the second section was a Persian version of the DASS21 scale which was used to assess the level of participants' depression, anxiety and stress.

Results: The study assessed data from the 409 participants: The mean (SD) age of the participants was 22.35 (4.68) years; and 66.3% of the participants were female. Findings indicated that 52.3%, 37.4%, and 46.7 % of participants had various levels (mild to extremely severe) of depression, anxiety and stress respectively. We found out that marital status had a statistically significant relationship with stress disorder in participants; and, single medical students have experienced more stress than those who were married (P< .05).

Conclusions: The results of this study showed that the mental health of students should be considered during the COVID-19 outbreak; because almost half of the medical students of Zanjan University have experienced varying levels of stress, anxiety and depression during the pandemic of COVID-19. It is suggested that the medical universities should have a plan to provide high-quality and timely psychological services in order to support the students.

Keywords: COVİD-19, DASS21, Medical Student

covid19-00770074

Perceived Risk, Information Seeking, and Protective Behaviour on Covid-19 Pandemic: Students Experiences at Zanjan University of Medical Sciences, Iran

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Background and objectives: COVID-19 is a new communicable disease which is preventable by adopting protective behaviours. This study aimed to investigate perceived risk, information seeking, and protective behaviour related to COVID-19 in university students.

Materials and Methods: An exploratory cross-sectional study was conducted among 409 students (66.3%female; mean age=22.65±5.1 years). In this e-study, employing a convenience sampling method, data were gathered by questionnaire consisted of 4 parts including socio- demographics, perceived risk, information seeking, and protective behaviour. The gathering data were analyzed using SPSS software (version 22) by considering the significance level α = 0.05.

Results: A total of 409 student participated in this e-study with a mean (SD) age of 22.35±4.6 years. Findings indicated that few participants consider themselves (much/too much: 26.4%) susceptible to be infected with COVID-19, and less than half of them considered the symptoms of COVID-19 as serious if infected (much/too much: 38.7%). We found out that most of the participants seek their information about covid-19 from social networks (such as WhatsApp and Telegram) (66.3%), then official websites (Ministry of Health, university websites, news agencies, etc.) (43.5%). The results showed that the highest and lowest protective behaviour against covid-19 infection in participants belonged to hand washing (83.6%) and the wearing masks (63.8%); also, the majority of them (98.3%) believed that avoiding contact with people having symptoms is an effective and protective behavior in preventing covid-19.

Conclusion: The level of students' perceived risk is low, which is very important issue as the

level of perceived risk is the most important factor in adherence of preventive behaviours. Most of the participants got information about COVID-19 from social networks and official websites. The majority of the participants adopted one or more of the recommended protective behaviours to avoid COVID-19 infection. However, the use of masks among students is the lowest protective behaviour; thus, it is recommended that educational planning to improve the perceived susceptibility and severity of students regarding COVID-19 and adherence preventive behaviours, especially the use of the mask, must be considered through the communication channel such as social networks.

Keywords: Perceived Risk, Information Seeking, Protective Behaviour, COVID-19

The Effect of COVID-19 Pandemic on Access to Reproductive Health Services: A Review Study

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Background: The pandemic of COVID-19 has changed people s ' lives in many ways compared to before it appeared. Including its impact on female reproduction due to the impact on family relationships and the direct impact of these relationships on society and the future population. One of the most important goals in this review study is to summarize the studies conducted in this field and present the effect of COVID 19 on various aspects of access to women's reproductive health services during COVID 19 pandemic has been investigated.

Methods: This study was conducted using the keywords COVID-19, Access, Reproductive Health Services and searching PubMed, google scholar, WHO and Springer databases by reviewing related articles from December 2019 to February 2021.

Results: A review of 823 articles in general and finally 62 articles in English and Persian on the effect of COVID-19 on access to women's reproductive health in 7 areas including rate the use of contraception, sexual satisfaction, prevalence of domestic violence, Prevalence of genital infections, access to health care, mortality of women of childbearing age, reproductive status and fertility indices were examined.

Conclusion: Based on studies the use of contraceptive methods, the rate of wanted pregnancies, access and use of health services has decreased, but the mortality of women, mothers and infants, offline services, the rate of unwanted pregnancies, domestic violence, rape has been increased and conflicting results regarding sexual satisfaction and the prevalence of genital infections.

Keywords: COVID-19, Access, Reproductive Health Services

covid19-00800062

Frequency of Fascioliasis in Admitting COVID-19 Patients in Training and Therapeutic Centers Setup: An Observational Study

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Fasciola infection is a parasite that, following living in its vertebrate host, reduces the host's inflammatory immune responses to infectious diseases, including COVID-19. This study aimed to determine the frequency of Fasciola infection among COVID-19 patients admitted to training and therapeutic centers of Alborz University of Medical Sciences, in Karaj, Iran. This retrospective cross-sectional study was performed on the serum samples of 182 patients with COVID-19 disease who were diagnosed by PCR with a mean age of 56.57 ($\pm$17.72.) years. After collecting the samples, ELISA test for fasciolisis was done on them and the results were statistically interpreted and reported. The mean ELISA titer of Fasciola hepatica in the study participants was 0.11542 ($\pm$0.70432). Also, according to statistical analysis, ELISA titer values had a normal distribution and there was no significant difference between men and women. The relationship between ELISA titer and age was also positive but weak and insignificant. The mean ELISA titer in the group with negative results was 0.11031 ($\pm$ 0.059338) and in the group with positive results was 0.325 ($\pm$ 0.145786) which indicated a significant difference between the two groups ($P < 0.001$). This difference was confirmed in both T-test (non-parametric) and Mann-Whitney U-test. The results of our study showed that out of 182 patients with COVID-19, 4 were positive for IgG antibodies against Fasciola and in fact the prevalence of fascioliasis in our study population was 2.2%. Also, the presence of anti-Fasciola hepatica antibodies was not related to age and sex.

Keywords: Fascioliasis; COVID-19; Seroepidemiology

covid19-00820066

Investigation into Stress Level of Medical University Students in Virtual Exams Comparing to In-person Exams in 1399

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Introduction: Concerning the current society condition and Covid-19 disease pandemonium, educational systems including universities had to teach virtually and hold remote exams to take a step ahead in decreasing the disease infection. The goal of conducting this research was to compare stress level of university students in virtual and in-person exams and exploring stress factors of university students.

Materials and Methods: A descriptive-analytical study of a cross-sectional type was conducted using an online questionnaire among random 300 students that included questions in regard with stress level and its reasons. The validity of the questionnaire has been evaluated and confirmed in a content form using a factor analysis. Test the hypothesis, chi-square test was used. Completed questionnaire data was analyzed using non parametric tests. Data of completed questionnaire was analyzed using nonparametric tests.

Findings: Studies have shown that 59.09% of university students acclaimed that their level of stress is higher in virtual exam and 27.27% of students declared that their level of stress had been higher in in_person exams among which up to 13.64% acclaimed that their level of stress hasn't differed. Regarding the increasing amount of stress in students in virtual exams, we were chasing after stress factors in university students which based on achieved results, we discovered that 25% of students declared that shortage of time was the reason for having stress , 23.33% declared the new rule of 110 seconds as the reason to stress and 21.67% recognized the probability of poor net connection as the stress reason and 15% chose the master's questions as the stress reason , 13.33% recognized fear of power outage as the stress reason and 1.67% declared they had no stress in virtual exams

Conclusion: Based on the achieved results , university student's stress in virtual exams is higher than in-person exams while we expected less stress in virtual exams rather than in_person since they are distant from the stressful exam center environment.

Keywords: Stress, Virtual Exam, Hormozgan Medical University

covid19-00860070

Predictors of Perceived Stress and Quality of Life among Women during the COVID-19 Outbreak: A Cross-Sectional Study from Iran

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Background: The COVID-19 pandemic currently is a global concern. To develop appropriate interventions in this regard, we need to have a better understanding on disease's psychological effects. Our study aimed to investigate the immediate effect of the COVID-19 pandemic on mental health and quality of life among Iranian women in Karaj, Iran.

Methods & Materials: An online survey was distributed through a social media (WhatsApp, Telegram, Instagram) between 30 may 2020 until 30 June 2020. Participants completed a modified validated questionnaire that assessed the perceives stress and quality of life. A total of 581 participants completed the study. The mean age of the participants was 38.57 ± 7.68 years, and 40.8% had a high level of education.

Results: Based on the final fitted model, only perceived stress directly impacts on Qol (B=0.47). Education and social support variable from both direct and indirect had an impact on Qol. Social support in addition of perceived stress, though informational seeking and secondary appraisal had impact on Qol (B= 0.499). Education in addition of directly impact, indirectly had impact on Qol (B = 0.786), education had strongest association with Qol and primary appraisal had lowest association.

Conclusion: In conclusion, stress management technique should be noticed during COVID-19 pandemic. Individuals should overcome stress by enjoying social support. More attention should also be paid to perceived stress and Qol of illiterate people.

Keywords: COVID-19, Stress, Quality of Life, Iran

Predictors of Perceived Stress and Quality of Life among Women during the COVID-19 Outbreak: A Cross-Sectional Study from Iran

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Keywords: COVID-19, Stress, Quality of Life

covid19-00870081

A Calcium Supplement will Reduce the Risk of Death in Covid-19

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Introduction: the elderly are higher than other age groups in expose of Covid-19. In the present study, we have investigated the clinical features and survival in elderly patients with Covid-19 in Baharloo Hospital in Tehran.

Method: This is a retrospective cohort study on older adults' information with Covid-19 admitted to Baharloo Hospital in Tehran. The information of hospitalized patients who were followed up at least until they were discharged or died, and finally survival-related factors were analyzed using Cox regression.

Results: A total of 522 patients were enrolled in the study, of which 53.8% were male, and 101 of them died. The average age of the deceased was 76.31 years, with a standard deviation of 8.66 years. The most common clinical symptoms at the time of admission were respiratory distress (69.5%), cough (61.1%), and fever (51.1%). Cox regression results showed that death's risk would increase by 5% for one year of age. Also, taking a calcium supplement will reduce the risk of death by 35%.

Conclusion: Due to the lack of calcium in the Iranian population and, on the other hand, the protective role of calcium in Covid-19, this issue is essential in the sick elderly and needs further investigation in the future.

Keywords: Elderly, Survival, Mortality, Covid-19, Severity, Adults, Respiratory Distress, Calcium Supplement

covid19-00900092

Frequency and Antimicrobial Resistance Pattern of Bacterial Isolates Involved COVID-19 Hospitalized Patients in Two Main Zanjan Educational Hospitals in 2019-2020

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Background and Objective: The emergence and outbreak of SARS-COV-2 infection has been challenging the global public health systems since December 2019. As one of the major concerns associated with the novel coronavirus disease, bacterial and fungal coinfections and antimicrobial resistance (AMR) play critical roles in the prognosis of the disease. No studies have addressed bacterial and fungal coinfections and the relative antimicrobial resistance patterns in COVID-19 patients in Zanjan, Iran. It is necessary to obtain regional data on superinfections in COVID-19 patients in order to limit the overuse of antibiotics and develop efficient antimicrobial therapy guidelines. This study aims to evaluate bacterial coinfections in COVID-19 patients and the regarding antibiotic resistance patterns.

Methods: In this cross-sectional study, 5530 Real Time PCR-confirmed COVID-19 cases, who were admitted to Vali-Asr Educational Hospital and Ayatollah Mousavi Educational Hospital in Zajan, Iran, from February 2019 to February 2020 were investigated. A total number of 5166 patients were hospitalized and investigated for bacterial and fungal coinfections. The obtained respiratory, blood, urine and stool samples were cultured on selective media according to bacteriology standards. Isolate identification and disc diffusion susceptibility tests were carried out. Data analysis was performed using SPSS 26.

Results: The admitted patients consisted of 49% females and 51% males with an overall mortality rate of 14.6%. Bacterial and fungal coinfections were confirmed in 423 patients (8.1%). Patients aging from 60 to 70 years (26.2%) had the highest ratio in this study. Coinfections were more prevalent among females (53.2%) than males (46.8%). The average length of stay for coinfected patients was 13.91days. These patients had poorer prognosis and a mortality rate of 54.8% which was significantly higher than that of those without coinfections (12.2%). Among the included patients, 55.8% were admitted to intensive care unit (ICU) and 70% had at least one comorbidity alongside SARS-COV-2 infection, with hypertension (38.8%) and diabetes (24.3%) being the most common conditions. Acinetobacter baumannii was the most prevalent bacteria isolated from respiratory tract .(%15.4) Escherichia coli (12.5%) and A. baumannii (2.1%) were the most frequently

isolated from urine and blood samples, respectively. Morganella morganii and Proteus mirabilis were the least frequent organisms with a 0.2% isolation rate. Fungal coinfection was confirmed in respiratory (10.9%), urine(%29.6)and stool (0.7%) samples. The clinically isolated gram-negative bacteria were highly sensitive to colistin with an average sensitivity rate of 95.2, making it the drug of choice. The gram-negative bacteria in urine, blood and respiratory samples were widely resistant to ampicillin,(%100) trimethoprim-sulfamethoxazole (100%) and ceftriaxone+trimethoprim-sulfamethoxazole,(%96.5) respectively. Urinary tract, respiratory tract and blood gram-positive bacteria were majorly sensitive tonitrofurantoin (66.7%), cefezoline+cloxacillin (75%) and vancomycin (75%). Tetracycline, ampicillin and ciprofloxacin were the least effective antibiotics for gram-positive bacteria with respective resistance rates of 100%, 91.3% and 91.2%.

Conclusion: Given the relatively high rates of bacterial coinfections is COVID-19 patients, it is of great importance to develop rapid and efficient diagnostic, therapeutic and disinfection strategies in order to control these infections in the hospitals.

Keywords: COVID-19; Bacterial Coinfection; Antimicrobial Resistance

covid19-00910078

The Reasons for Higher Mortality Rate in Opium Addicted Patients with COVID-19: A Narrative Review

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The outbreak of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) caused COVID-19 has developed into an unexampled worldwide pandemic. The most important cause of death in patients with COVID-19 is Acute Respiratory Distress Syndrome (ARDS). Opium is widely used for its analgesic features in the control of acute and chronic pain related to different diseases. Opium consumption is increased over the last three decades and leads to adverse effects on the respiratory system; opium also affects the lungs' functions and respiration. The contemplative issue is the higher mortality rate due to SARS-CoV-2 infection in opium addicts' patients. Studies have shown that despite the decrease in proinflammatory cytokines production in opium addicts, there are at least 4 reasons for this increase in mortality rate: downregulation of IFNs expression, development of pulmonary edema, increase thrombotic factors, increase expression of Angiotensin-converting enzyme 2 (ACE2). Therefore, identifying the causes of mortality and approved therapies for the treatment of COVID-19 patients who use opium for any reason is an important unmet need to reduce SARS-CoV-2 infection-related mortality. This review study demonstrated the effects of opium on immune responses and the reasons for the higher mortality rate in opium addicts' patients with COVID-19.

Keywords: Opium; Cytokine Storm; COVID-19; IFNs

covid19-00920251

Mental Health Outcome of Isolation and Quarantine for COVID-19: A Brief Review Study

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Background: Transmission of infectious diseases is often prevented by quarantine and isolation of the populations at risk. These approaches restrict the mobility, social interactions, and daily activities of the affected individuals. Due to the ongoing coronavirus disease 2019 (COVID-19) pandemic, people worldwide are currently affected by social distancing and mentioned restrictive measures of individuals in combination with fear of contagion, quarantine and stigma, which have the potential of adversely affecting the psychological health on individual and community level. the application of These containment measures is likely to cause chronic stress and is associated with a burden on mental health, posing risk factors for anxiety and depression. The present study was designed to determine the most common aspects of mental health during isolation and quarantine caused by Covid-19.

Methods: The present study was a brief review study designed in 2021. PubMed / Medline, Google scholar and Scopus databases were used to search for similar studies and extract content. Selected keywords for the search included "mental health", "COVID-19", "Isolation", "Quarantine" and "Psychological aspects". The articles were retrieved using advanced search and using AND operator. The one researcher examined the extracted articles and included Latin articles on the mental health outcome of isolation and quarantine for COVID-19. Summaries of articles published in congresses and conferences were excluded from the study. Initially, 12 articles were finally evaluated.

Results: COVID-19 is leading to intense psychosocial issues and comprising mental health marking a secondary health concern all around the world. Globally implementing preventive and controlling measures, and cultivating coping and resilience are challenging factors. There is a high burden of mental health problems among patients, informal caregivers, and healthcare providers who experienced quarantine or isolation. Prevalent mental health problems among the affected individuals include depression, anxiety, mood disorders, psychological distress, posttraumatic stress disorder, insomnia, fear, stigmatization, low self-esteem, lack of self-control, and other adverse mental health outcomes.

Conclusions: This study found severe mental health problems among individuals and

populations who have undergone quarantine and isolation in different contexts. This evidence necessitates multipronged interventions including policy measures for strengthening mental health services globally and promoting psychosocial wellbeing among high-risk populations. Therefore, Prevention and intervention approaches to attenuate the psychosocial impact should be an integral component of crisis response during pandemic conditions.

Keywords: COVID-19, Mental Health, Quarantine

covid19-00920252

The COVID-19 Social Media Infodemic: A Brief Review Study

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Background: While the field of infodemiology has studied information patterns on the Web and in social media for at least 18 years, the COVID-19 pandemic has been referred to as the first social media infodemic. During lockdown, people are using social media platforms to gain information about COVID-19. Social media has played a crucial role in spreading awareness and knowledge about public health; however, it has also been misused for the spreading information. The coronavirus also fueled the surge of numerous rumors, hoaxes, and misinformation, regarding the etiology, outcomes, prevention, and cure of the disease. The aim of this study is to determine Consequences of disinformation on social media and the spread of panic. Also, we discuss some solutions to cope with mentioned problems and their adverse effects.

Methods: The present study was a brief review study designed in 2021. PubMed / Medline, Google scholar and Scopus databases were used to search for similar studies and extract content. Selected keywords for the search included "COVID-19", "Social media" and "Infodemic". The articles were retrieved using advanced search and using AND operator. The one researcher examined the extracted articles and included Latin articles on the COVID-19 social media infodemic. Summaries of articles published in congresses and conferences were excluded from the study. Initially, 16 articles were finally evaluated.

Results: The nature of the impact of social media panic among people varies depending on an individual's gender, age, and level of education. Cultural factors, demand pressure for information during the crisis, the easiness of information dissemination via social networks, marketing incentives and the poor legal supervision of online contents are the main reasons of misinformation dissemination. Disease statistics; treatments, vaccines and medicines; prevention and protection methods; dietary recommendations and disease transmission ways are the main subjective categories of releasing misinformation regarding novel coronavirus outbreak. Such spread of disinformation is masking healthy behaviors and promoting erroneous practices that increase the spread of the virus and ultimately result in poor physical and mental health outcomes among individuals. To address this issue, the frontline healthcare providers should be equipped with the most recent research findings and accurate information. Consequences of misinformation dissemination regarding disease include psychosocial; economic; health status; health system and ethical ones.

Conclusions: Social media has played a key role in spreading anxiety about the COVID-19

outbreak. Monitoring social media data has been identified as the best method for tracking rumors in real time and as a possible way to dispel misinformation and reduce stigma. However, the detection, assessment, and response to rumors, stigma, and conspiracy theories in real time are a challenge. Also, advanced technologies like natural language processing or data mining approaches should be applied in the detection and removal of online content with no scientific basis from all social media platforms.

Keywords: COVID-19, Social Media, Infodemic

covid19-01020141

The Role of Health and Care in Crisis Management Covid19

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Introduction and goal: Health has always been an integral part of crisis management relief operations. This science has been around since World War two, following military and paramilitary attacks on various countries through war, terrorism, or even natural disasters. It has undergone many changes and transformations. Our beloved country Iran has long been subject to various events and crises. Incidents such as war, floods, earthquakes, fires, terrorism, etc. Incidents that have caused irreparable losses in various dimensions (casualties, financial, psychological, etc.). Therefore, optimal and comprehensive management of these crises is very important. The crisis management cycle includes prevention, preparedness, coping with reconstruction and rehabilitation, and neglect in any part of this cycle can cause serious harm. The purpose of this article is to manage disaster relief in crisis, Covid 19 virus outbreak crisis in order to optimize and integrate the experiences of medical and relief forces in crisis management and create integrated knowledge management .

Method: This review study relevant information from search databases Pubmed, Scopus, Google Scholer & Magiran .Data analysis was performed qualitatively.

Findings: A cycle that has repeatedly faced many challenges and problems in recent years. Serious challenges such as lack of coherent program, weakness in working group and inter-organizational coordination, weakness in the necessary infrastructure for integrated urban management, lack of use of people and NGOs, weakness in education and information and weakness in service delivery Health is an optimal, appropriate and timely treatment. We decided to plan the role of health, treatment and optimal and comprehensive management in crises to improve the necessary infrastructure, increase the ability to cope and organizational readiness and prevent surprises.

Conclusion: Increasing knowledge management in the field of crisis relief operations and future research on crisis management in the field of relief during and after the crisis. And have a coherent, comprehensive, forward-looking plan for the role of health and optimal and comprehensive management in the coronavirus pandemic crisis.

Keywords: Covid 19, Crisis Management, Healthcare

covid19-01030087

COVID-19 Main Protease Inhibition using Propolis Natural Products: In Silico Study

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COVID-19 pandemic has posed a serious threat over the last year and taken more lives globally. Most research groups are still hard working to find suitable ways to tackle the present crisis. Of these, repositioning marketed drugs and natural products may be one of the best solutions. Natural products in particular honey bee natural products especially propolis possess high potential bio-active components which are worthy using against COVID-19 main protease. This research investigates antiviral potential of extracted propolis components against COVID-19 main protease (Mpro) by computational methods. The crystal structure of COVID-19 Mpro was obtained from the protein data bank. Four marketed drugs with antiviral properties were used as standard in order to compare the results with those of natural ligands. The two propolis components, namely 3,4,5-Tricaffeoylquinic acid and Kaempferol glucoside have shown lowest binding scores of -9.0, -8.5 Kcal/mol, respectively. These two inhibitors were then picked for considerations due to their pharmacokinetic features. 150 ns of Molecular dynamics simulations were also conducted for these compounds in order to evaluate their effects on protein structure and dynamics of interaction. The 3, 4, 5-Tricaffeoylquinic acid is hopefully proposed for COVID-19 Mpro inhibition if further in vitro, in vivo, and clinical trial studies will approve their effectiveness against COVID-19.

Keywords: Covid-19, Natural Products, Molecular Docking and Molecular Dynamic Simulations

covid19-01040298

Equivocal Role of Androgens in Covid-19, Friend or Foe?

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Background: Covid-19 caused by SARS COV-2 has afflicted humans' life for almost 17 months. Epidemiological studies have demonstrated that males are more likely to experience more severe outcomes and mortality than females. Other than social risk factors like smoking or alcohol consumption it seems that sexual hormone diversity, especially androgens, plays a crucial role. In this study, we review the androgens impressions in covid-19 patients.

Method: PubMed, google scholar, science direct and Scopus databases have been searched for the following keywords: androgen, testosterone, covid-19, SARS CoV-2. A total of 28 articles have been selected based on our selection criteria.

Discussion and conclusion: Patients who have received anti-androgen medications like 5alpha-reductase inhibitors, due to prostate cancer or androgenetic alopecia, have shown a lesser frequency of covid-19 symptoms (insomnia, headache, dry cough), lower ICU admission, and length of hospitalization. androgens are the main transcription promoter of TMPRSS2, an enzyme needed for SARS CoV-2 cell entry, thus androgen deprivation therapy probably by decreasing the amount of TMPRSS2 ameliorates patient's outcome. On the other hand, it has been reported the low testosterone (T) levels in covid-19 patients might be associated with severe outcomes and increased levels of LDH, CRP, Procalcitonin, Ferritin, and Neutrophil/Lymphocyte ratio which is known markers of inflammation. it appears that androgen's role in covid-19 has two faces. First, facilitating SARS CoV-2 entrance to cells causes more severe involvement that this adverse effect could be blocked by androgen depravation. Second, androgens could exhibit anti-inflammatory effects suggesting that hypogonadism could result in severe inflammatory conditions. In conclusion, diminishing androgen effects in tissues could be a promising approach to prevent poor outcomes.

Keywords: Covid-19; SARS CoV-2; Androgen

covid19-01060089

COVID-19 Treatment: Docking Studies of the Potent Synthetic and Natural Compounds as SARS-CoV-2 3CL Pro Inhibitors

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The SARS-CoV-2 belongs to the genus Beta-coronavirus from group 2B, which represented close to 79% sequence similarity to the SARS-CoV according to the next-generation sequencing technology [1]. The rapid spread of the SARS-CoV-2 has sparked alarm worldwide. So far no antiviral agent has been proven for treat human coronavirus infections and preventive vaccines are still being explored. Therefore, attaining to the best drugs to treat COVID-19 at the shortest possible time is one of the most critical issues in this urgent situation and the dire need to find potential therapeutic agents is strongly felt. If the coronavirus was considered as a target, the anti-virus effect could be induced by blocking the receptor-binding domain of virus, hampering viral self-assembly process, preventing the virus RNA synthesis and inhibiting viral replication. The SARS-CoV-2 main protease (3-chymotrypsin-like proteinase, 3CLpro) which released from Protein Data Bank (code: 6LU7) [2] has a vital role in coronaviruses replication, hence, it could be a promising target to develop anti-SARS-CoV-2 drugs. Given the vital role of 3CLpro in the life cycle of the coronaviruses, studying this protein to find therapeutics against the SARS-CoV-2 could be very important. Molecular docking investigation of the therapeutic potential of marketed drugs is a fast and cost effective approach to provide a solution to this problem. Herein, the molecular docking studies were performed on a broad range of reported synthetic drugs and natural compounds employing AutoDock Vina program. In this regard, we used 3CLpro as a target to screen synthetic compounds with various pharmacological usage and natural compounds particularly those employed in traditional Iranian medicine by virtual screening protocol [3]. The docking results indicated that the Licofelone acyl glucuronide as an anti-inflammatory drug and delta-bilirubin as an antioxidant and anti-inflammatory agent as well as, kappa-carrageenan conformer, beta-D-galactopyranosyl and calycosin 7-O-glucoside as natural compounds with minimal side-effects, according to in-vitro studies, are good candidates to block the enzymatic activity of SARS-CoV-2 3CLpro.

Keywords: SARS-CoV-2 3CLpro, Virtual Docking, Synthetic and Natural Ligands

covid19-01090260

Effects of the Lockdown on the Individuals' Risk of Covid-19 in IRAN: Benford's Law Approach

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Covid-19 has been one of the biggest pandemics in recent decades. In recent months, various policies have been used to prevent corona transmission. One of the most important policies used is quarantine. But can quarantine reduce epidemics? This article investigating the effects of public quarantine policy on reducing mortality can be very important. In this study, we analyze the general quarantine effects on the spread of the wave of Covid-19 pandemic in Iran by Benford's law method. Benford's law is the observation that in many numbers from real-life data or epidemic data, the significant digits are not uniformly distributed; they are heavily skewed toward the smaller digits. The substance of Benford's Law can easily be expressed in words: in a given set of data, the probability of occurrence as the first digit from the left is different for each of the digits 1, 2, ... 9. Numbers starting with one occur more often than those starting with two, which are in turn more frequent than those starting with three, etc., and numbers starting with nine are the least frequent ones. Thus, we propose a test. When the numbers are taken from an exponential distribution, it is demonstrated that they automatically follow Benford's Law. Data were tested with three categories: 1- The whole period of the disease outbreak 2- Before the Lockdown 3- After the Lockdown. The results of the study show that the data on deaths and cases in Iran for the whole period, and the period before the Lockdown, conforms that Benford's law. In other words, in these two samples, the hypothesis of data manipulating is rejected, and its conformity with Benford's law indicates that covid 19 growth has been increasing exponentially. An examination of the existence of Benford's law in the sample after the Lockdown shows that has been able to eliminate the exponential trend of covid 19 death and cases. Therefore, Lockdown has been useful for managing the outbreak of covid 19 in Iran.

Keywords: Epidemic; Banford Law; Covid 19

Impact Analysis of the Effect of Socio-Economic Structure on the Infection and Mortality Rate of Coronavirus: A Step-Wise Regression Method

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Coronavirus is one of the largest pandemics in the world`s pandemic history that has had a massive impact on human life in different countries that these effects are very different in different countries due to differences in their socio-economic structure. The present research seeks to investigate the important reasons for these differences in the form of identifying the most important structural factors affecting the intensification of the coronavirus pandemic. The study is conducted using cross-sectional data collected for 94 most contaminated countries based upon 53 variables. For this purpose, two methods have been employed namely Partial Correlation Analysis and Step-Wise Regression Analysis to test the research According to the obtained results, increasing indicators such as overweight, diabetes rate, higher consumption of alcohol, higher consumption of tobacco, less access to health facilities, and more air pollution have increased the incidence and death of corona in countries. Among the economic and social variables, variables such as government debt, and among the infrastructural variables of having a developed health system, developed information technology tools have also been able to control the extent of this epidemic. The results of this study are very important from both the public health policy perspective and the corona socio-economic governance. The main policy recommendation of this research is that in the management of COVID-19 pandemic and based on the public health point of view, it is necessary to inform the public regarding the individual and general components of health conditions that are effective in the mitigation of the coronavirus pandemic. Also, considering the effective role of socio-economic variables such as government economic conditions, access to information technology, and trust and social capital, the importance of effective governance means a correct and timely policies of governments and especially the necessary support for low-income groups. Finally, in order to increase resilience in the face of this crisis and similar shocks in the future, it is necessary to take serious steps to develop the infrastructure of the health system, socio-economic development institutions and the governance.

Keywords: COVID-19, Coronavirus Economic Governance, Step-wise Regression, Partial Correlation

Systematic Review of Family Outcomes of Covid-19 Disease in Iranian Society

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With the emergence and spread of the Covid-19 disease pandemic in the world, not only was the physical health of people in the community exposed to serious harm and threat, but the disease caused problems in families and was considered a threat to family health. The main purpose of this study was to investigate the family consequences of the prevalence of Covid-19 disease in Iranian society. This study was performed by systematic review method. The study was conducted by reviewing research published in Iranian electronic databases including SID, Magiran, Irandoc, Noormags, ISC, Civilica and Google Scholar in 2020. According to 15 studies, coronavirus is associated with a wide range of family problems. This can be attributed to increased stress levels of family members, economic pressure caused by coronavirus on the family, unemployment caused by coronavirus head of the family, suicidal ideation in the families of survivors of the disease, increased burden of women's responsibilities in the family, increased tension, disputes and domestic violence, increased unexpressed grief in the family, obsessive-compulsive behaviors in family members, fatigue and boredom caused by coronation among family members. Given the extent of the devastating family consequences of coronavirus on families, designing family interventions to reduce family tensions and conflicts is necessary and unavoidable?

Keywords: Family Outcomes, Covid-19, Systematic Review

covid19-01120090

Saliva as a Diagnostic Specimen for Detection of SARS-CoV-2 in Suspected Patients: A Scoping Review

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Background: From the begging months of 2020 a severe acute respiratory syndrome coronavirus (SARS-CoV-2, also called 2019-nCoV) caused a devastating global outbreak. At present, the diagnosis of coronavirus disease 2019 (COVID-19) is made through a nasopharyngeal swab based on reverse transcription polymerase chain reaction (RT-PCR) technique. However, some recent studies suggested the possible role of oral fluids and saliva in the detection of SARS-CoV-2. The purpose of this scoping review is evaluating the available evidence regarding the efficacy of saliva as a diagnostic specimen in COVID-19 patients.

Methods: A systematic literature review of six databases (PubMed, Scopus, The Cochrane Central Register of Controlled Trials [CENTRAL], Science Direct, Web of Science and Google scholar) was carried out without any restrictions on date of publication to identify the reliability of saliva as a diagnostic specimen for detection of SARS-CoV-2 in suspected patients.

Results: Nine eligible articles were included in this review based on our described method. All the included studies are based on clinical surveys among patients with confirmed SARS-CoV-2 infection. Most of studies included in this review, reported that there is no statistically significant difference between nasopharyngeal or sputum specimens and saliva samples regarding viral load.

Conclusions: Despite limitations of this study, the findings of this review suggest that the use of self-collected saliva as a non-invasive specimen has proper accuracy and reliability regarding detection of SARS-CoV-2 based on RT-PCR technique.

Keywords: COVID-19, Saliva, PCR

covid19-01130091

Are Cognitive Factors Effective in Healthy Behaviors in Preventing the Prevalence of Covid-19 Virus? A Prediction Based on Gender and Education Components in Iranian Citizens

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The aim of this study was to investigate the effect of cognitive distortions, ?. The research method was correlational and its statistical population was all persons over 18 years of age who had access to the Internet in 2020. 682 people from this statistical population answered the questionnaires through voluntary sampling. In order to collect data, Alice Cognitive Distortion Questionnaire (1998) and researcher-made questionnaire of Covid-19 preventive healthy behaviors were used. Data were analyzed using Pearson correlation coefficient and multiple regression analysis in a stepwise manner. The results of Pearson correlation analysis showed that there is a significant negative relationship between the dimensions of cognitive distortions and healthy behaviors. Also, there was a significant relationship between gender components and level of education with healthy behaviors. This means that women and people with higher levels of education were more likely to engage in Covid-19 preventive healthy behaviors. In addition, the results of regression analysis showed that healthy behaviors can be predicted, respectively, through emotional reasoning, disregard for the positive, exaggerated generalization, labeling, do's and don'ts, and mental filtering. These variables can significantly predict 39% of variance in healthy behavior. Also, by entering the components of gender and the level of education in the stepwise method, the ability to predict healthy behaviors reached 42%. Therefore, considering the important role of thoughts in the way of feeling and behavior, it is possible to acquaint people with the psychological aspects of their behaviors in addition to medical education in epidemic crises that affect people's behavior in the health of the individual and society to make the actions more effective.

Keywords: Cognitive Distortions, Healthy Behaviors, Covid-19 Virus

covid19-01190244

The Links between Vitamin D Deficiency and COVID-19 Infections

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Coronavirus Disease 2019 (COVID-19) pandemic remains a major public health threat in most countries. Vitamin D is a steroid hormone, produced with the effect of ultraviolet radiation on the skin or available from food sources or dietary supplements. Some studies demonstrated a potential link between vitamin D deficiency and various diseases, including systemic infection. Vitamin D insufficiency affects the immune functions as vitamin D exerts an immunomodulation role, increasing innate immunity by secretion of antiviral peptides, which improves mucosal defenses. COVID-19 disease is associated with the increased generation of pro-inflammatory cytokines, Creactive protein (CRP), acute respiratory disease syndrome (ARDS), pneumonia, and heart failure. At the same time, it has been proven that, serum concentrations of 25(OH)D were inversely associated with pro-inflammatory cytokines, IL-6, increased CRP, and increased risk of pneumonia, ARDS, diabetes and heart failure. It is shown that a significant difference in the mean levels of vitamin D within the mild (78 nmol/L), ordinary (68.5 nmol/L), severe (53 nmol/L) and critical cases of COVID-19 ($p < 0.001$) and that a significant association between vitamin D status and clinical outcomes ($p < 0.001$). Also reported that subjects with a serum vitamin D concentration.

Keywords: Vitamin D ،COVID-19 ،ARSD

covid19-01260097

Influential Factors of Mask-Wearing, and Observing Social Distance in Iranian Pregnant Women during the Pandemic of Covid-19

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Introduction: Despite the WHO emphasis on mask-wearing and social distance in preventing the spread of covid-19, many people ignore it. This study aimed to determine the influential factors of mask-wearing, and observing social distance among Iranian pregnant women during the pandemic of covid-19 in Zanjan City from June to September 2020.

Method: This cross-sectional study was conducted on 2336 pregnant women who had been referred to health care centers affiliated to Zanjan University of Medical Sciences. Multi-Stage sampling method was used for the selection of study participants. A binary logistic regression was used for statistical analysis, and a p-value less than 0.05 considered statistically significant.

Results: Our results show that 76.6 of the pregnant women demonstrated good behavior regarding mask-wearing, while only 46.7% of them observed social distance. Rural residency (p-value).

Keywords: Mask Wearing, Social Distance, Covid-19, Pregnancy

covid19-01260120

Influential Factors of General Anxiety Disorder among Iranian Pregnant Women during the Second Peak of COVID-19 Pandemic

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The aim of the study was to determine the rate and related factors of prenatal general anxiety disorder in the second peak of the COVID-19 pandemic in Iran. A cross-sectional descriptive study was conducted on 2336 pregnant women who referred to health centers of Zanjan province in Iran from June to September 2020. The samples were selected using a multi-stage sampling method. Data were collected by telephone using a General Anxiety Disorder questionnaire (GAD) and analyzed with descriptive statistics and the logistic regression model at a 95% confidence level. Results show that, during the pandemic of COVID-19 more than 78 % of Iranian pregnant women had severe anxiety. The odds of having general anxiety disorder in urban residency was 1.80 times than the rural residence and getting information about preventive and self-care guidelines of COVID-19 were 1.24 times than the other information.

Keywords: Pregnancy; Anxiety; Prenatal Care, COVID-19 Outbreak

Effect of the COVID-19 Pandemic on Interest in Home-Based Exercise: A Study on the Iranian Community

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Background: According to WHO, immediate self-quarantine is assumed as the best course of action for highly contagious diseases. But, many individuals have so far become overweight and are also suffering from physical problems. However, it is not clear how much restrictions on self-quarantine have increased people's interest in doing exercises at home. Therefore, the present study aimed to investigate whether self-quarantine during the outbreak of the COVID-19 has raised personal interest in home-based exercise or not.

Methods: This descriptive study with a comprehensive electronic systematic search in the Google Trends database using the keyword of "home-based exercise" retrieved the relevant data about the Internet search activity of people in the Iranian community. Google Trends uses a fraction of searches for a particular term (Keyword or search term), and then analyze Google search. Also, it confirmes that Google Trends is a reliable tool for digital epidemiology. The data were accordingly obtained within two-time intervals, i.e., from February 18, 2020 to October 18, 2020 and eight months prior to the outbreak of COVID-19 (namely, June 18, 2019 to February 18, 2020). The Wilcoxon test and the Spearman's correlation coefficient used to analyze the data.

Results: The results established significant increase in "home-based exercise" Google search in the eight-month time interval during COVID-19 compared with the same period before the pandemic.

Keywords: COVID-19, Home-Based Exercise, Google Trends

covid19-01330234

Calculation of Direct Medical Costs in Covid-19 Patients Admitted to Intensive Care in Golestan Province

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The aim of this study was to estimate the direct medical costs of treating Covid-19 patients in severe and acute conditions who were admitted to a Covid-19 hospital in Golestan province in the first 6 months of 1399.This descriptive-analytical study is a partial economic evaluation that has been done cross-sectionally and all patients in acute and severe conditions who were admitted to a public hospital in the center of Covid-19 in the first 6 months of 1397 (157 patients).The required data were collected from inpatients records by the hospital information system. Disease costs in this research study are collected in a bottom-up manner. The average medical cost per patient of Covid-19 in serious condition is 214,926,500 Rials (average medical cost). Inpatient services and pharmaceutical services account for the largest share of costs. The results of the study indicate the heavy economic burden of Covid-19 disease on society and the country's health system. The high prevalence of this disease, insufficient attention to prevention and lack of sufficient capacity to properly manage this epidemic has caused severe economic shocks on society and the country's health system.

Keywords: COVID-19, Direct Cost, Golestan

covid19-01380195

Explanation of the Psychological Needs of Patients with Covid 19:

A Qualitative Study

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Psychological needs of patients with Covid 19 are very important in the treatment and recovery process. This study aimed to explanation the psychological needs of these patients in Semnan with a qualitative approach.

This study was conducted in 2020. Sampling was purposeful with maximum variation. Data were gathered via semi-structured interviews by 19 patients with covid 19 who were quarantined at home after confirmation of the disease (9 females and 10 males). After obtaining legal permissions and identifying patients, semi-structured interviews were conducted and the main themes were extracted by conventional content analysis method (simultaneously with data collection and based on five steps of Granheim and Lundman). The research was performed using Lincoln and Guba criteria. The main themes included "needs for permanent medical care", "concern for the health of family members", "economic situation of family", and "Take the disease seriously by officials and people". It seems that patients have many other concerns besides their disease, which are psychologically effective in the course of the disease and it is necessary to pay attention.

Keywords: Covid 19, Psychological Needs, Quarantine

covid19-01390102

Core Competencies in Disaster Nursing during COVID-19 Outbreak :
A Descriptive Cross-Sectional Survey

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Background: As disasters have become more frequent and serious in recent decades, all nurses should have core competencies in disaster preparedness, response, and recovery. Disaster nursing core competencies are not well understood in Iran, as they are in many other countries. Therefore, the aim of this study is to examine the disaster core competencies levels experienced by critical care nurses working in private hospitals of Qazvin, Iran.

Methods: This descriptive cross-sectional survey was conducted between November and December 2020 amongst 164 nurses in the critical care departments of four private hospitals. The self-report questionnaire entitle «Nurses Perceptions of Disaster Core Competencies Scale; NPDCC» was used to collect data. Independent t-test and analysis of variance were performed to report the mean differences in total disaster core competencies of nurses according to the participants characteristics.

Results: The mean score of overall disaster core competencies of nurses was 3.02 out of 5 (SD = 0.77). Among the five dimensions of disaster core competencies of nurses, the highest and the lowest mean (SD) scores related to «technical skills» and «critical thinking» were; (3.29 (SD= 0.95) vs. 2.41 (SD =0.94)), respectively. There was a meaningful difference in disaster core competencies of nurses according to their professional experience (P = 0.003) and educational degree (P = 0.041) while no significant association was found between nurses disaster core competencies and participants age, gender, marital status and prior disaster experience (P > 0.05).

Conclusion: The results of the study are intended to be used as basic efforts to boost the capacity for responding effectively to disasters and to investigate the advancement of clinical practice education programs especially during pandemic such as COVID-19.

Implications for Practice: Nurse managers can assess nurses disaster core competencies on a daily basis in order to develop appropriate disaster preparedness programs and training. More research is needed to identify the causes for poor «critical thinking» competency, and it is recommended that adequate policies are developed to address improved disaster nursing in hospitals.

Keywords: COVID-19, Core Competencies, Disaster Nursing

Therapeutic Effect of Thyme (Thymus Vulgaris) Essential Oil on Patients with COVID19: A Randomized Clinical Trial

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Background & Objective: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a worldwide pandemic disease. There is currently no effective cure for this virus, but some types of herbs can be a good choice for reducing its symptoms. There are some reports that Thymus vulgaris has high antioxidant compounds effective in strengthening the immune system, as well as antiviral effects in reducing the respiratory symptoms. Therefore, we speculated that T. vulgaris could be useful for reducing some of the symptoms in patients suffering from coronavirus disease 2019 (COVID-19).

Materials & Methods: First, thyme essential oil was prepared, and a questionnaire regarding the patients' symptoms was designed. Then, 83 patients with COVID-19 were randomly selected and divided into control and thyme-receiving groups. The questionnaire was completed and emphasized to consume 5 mL of the syrup or essential oil three times per day. Finally, one week after the first visit, the questionnaire was completed again to determine the effects of thyme on the mentioned symptoms. Then, the test results were reviewed and reported.

Results: The results one week after taking thyme showed that, the fever ($p<0.027$), dizziness ($p<0.003$), cough, dyspnea, muscular pain, headache, anorexia, weakness and lethargy, fatigue, and chest wall pain were significantly reduced ($p<0.001$). Also, BUN ($p<0.004$), neutrophil count ($p<0.001$), and calcium ($p<0.034$) decreased but, lymphocyte count was increased significantly ($p<0.001$).

Conclusion: Thyme plant which has high antioxidant properties, strengthens the immune system, and induces the antiviral effect could reduce the symptoms of coronavirus; therefore, it is recommended for reducing the symptoms of COVID-19.

Keywords: Coronavirus Disease 2019, Thyme, Thymus Vulgaris, Persian Medicine

covid19-01450107

Effectiveness of Telephone-Based Screening and Triage during COVID-19 Outbreak in the Promoted Primary Healthcare System: A Case Study in Ardabil Province, Iran

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Aims: Screening services for early detection of patients is one of the important capabilities of the health system with a proper referral system. In the crisis of respiratory infection of Covid-19, screening based on symptoms is one of the key measures. The aim of the current study was to evaluate the telephone-based screening and triage services in the promoted primary healthcare system with regard to the Covid-19 outbreak, in terms of reducing unnecessary referrals to the hospital.

Methods: This is a descriptive cross-sectional study conducted in two stages on 1,406,635 households during March/April 2020 in Ardabil province for screening and early detection of Covid-19 disease. In the first stage, conducted by trained healthcare providers through telephone, individuals suspected of Covid-19 were identified. In the second stage, the individuals were referred to the second level of service in comprehensive healthcare centers (16- or 24-h centers) for clinical evaluation by a physician.

Results: The results showed that before establishing a screening and triage system for patients in comprehensive healthcare centers, all patients were referred directly to the hospital, while after the implementation of the program, a significant reduction in hospital visits was observed and a large number of patients undertook the care and triage services in comprehensive healthcare centers.

Conclusion: The use of a grading system in referring patients with suspected cases, triage of patients according to symptoms at the comprehensive health centers, and activation of home isolation were the most important factors in reducing the burden of unnecessary referrals of patients to the hospital.

Keywords: Screening, Triage, Covid-19, Comprehensive Health Centers

Teaching Adults How to Prevent COVID-19 Infection by Health Workers: The Application of Intervention Mapping Approach

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Introduction: Education is one of the most important approaches to preventing infectious diseases at the time of the pandemic. The purpose of the study was to develop an intervention-training program using an intervention mapping approach (IMA) to prevent COVID-19 infection in adults at the time of the pandemic by health workers.

Materials and methods: The present study was a study protocol where IMA was used as a planning framework for developing an intervention-training program to prevent COVID-19 infection in adults at the time of the pandemic by health workers in Ardabil city. Six intervention mapping (IM) steps have been described in this protocol. As the first step, needs assessment was performed by reviewing the studies, qualitative evaluation, and interviews. In the second step, the matrix of change objectives was designed from the intersection of performance goals and determinants. Later on, after designing the program and planning the program implementation, the program evaluation plan was developed.

Results: IMA guided us in designing and implementing a control-oriented training program with the participation of the participants along with the definition of outcomes, performance goals and determinants, theoretical methods and practical applications, intervention program, implementation, and step by step assessment.

Conclusion: IM is a control-oriented, systematic, participation-based approach to design and implement targeted and on-going health promotion programs based on the needs of the target group at the time of the pandemic by health workers

Keywords: Adults, COVID-19, health worker, intervention mapping

covid19-01470177

Mask Mouth during COVID-19 Pandemic- A Myth or Truth

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Background and Objective: Mouth masks are the ubiquitous symbol of the pandemic caused by the Sars cov-2 virus.Mask mouth describes the variety of oral side effects from wearing a mask for an extended time. This study is aimed to assess the various ill effects caused by extended use of mouth mask in oral cavity among general population.

Materials and Method: This study is conducted among 400 individuals. The survey was titled as "Assessment of precautionary measures during COVID-19 pandemic" so as to obtain unbiased results, Questions were asked regarding the opinion on mask as a precautionary measure ,mask wearing habit and the changes if any as observed by the individual after the use of mouth mask and the results were statistically analyzed.

Results: The most common complaint was difficulty in breathing as experienced by (62.3%) followed by dry mouth (37.9%), halitosis (34.7%), and bleeding gums(2%). In addition to the above mentioned 33.4% people have noticed a decrease in amount of water intake (dehydration) after wearing the mask.

Conclusion: Mouth masks have become a fragment of our daily life and the use of them cannot be avoided in current times. Mask mouth might create an inconvenience, but it's easy to address with the right tools. So it's important to create awareness among the population. The study helped create awareness among those participating in the community survey about their mask wearing habits, types of masks available and the most common errors caused by them unintentionally, and was an eye opener for people who were unaware about the etiology of the symptoms.

Keywords: Mask Mouth, COVID-19 Pandemic, Dry Mouth

covid19-01490109

The Role of Information and Information Resources in Awareness, Control and Prevention of COVID-19

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Introduction: Towards the end of 2019 and beginning of 2020, the outbreak of Covid-19 took on a fast pace across the globe, becoming the main concern of people, newspaper headlines, news networks, and a serious threat for over half of the world population. While it is known that reliable and accurate information resources have an important role in the prevention and control of such viral diseases, coping with the infodemic has added to the many challenges of this crisis. The present study was conducted with the aim of evaluating the role of information, information resources and awareness in the control and prevention of Covid-19.

Methodology: This study was a descriptive-analytical survey conducted on a population of residents in Tabriz, one of the most populated cities in Iran. 450 participants were selected for the study using Morgan's Table and a simple access sampling method. The data collection instrument was a researcher-made questionnaire, the validity and reliability of which have been approved. Descriptive and inferential statistics were used to analyze the data through SPSS .

Results: A wide range of mass media has become well known as information resources for Covid-19. Iran's national television, the Internet, social media, Tabriz's provincial television network, and short text messages from the Ministry of Health have been among the most common, reliable and easily accessible means of obtaining information during the pandemic. Other findings indicate a significant statistical difference in the rate of using information resources during the Covid-19 pandemic based on age and gender; however, this difference is not significant regarding the reliability of information resources with regard to age and gender .

Conclusion: Health information and the literacy for using this information have an undisputable role in the prevention and control of pandemic diseases such as Covid-19. Providing accurate, reliable and evidence-based information in a timely manner for the use of

resources and information channels related to Covid-19 can be a fast and low-cost strategic approach in confronting this disease.

Keywords: Covid-19; Information resources; Infodemic; Misinformation; TV; Internet; Social Media

covid19-01510116

Producing Medical Terminology Flashcards and Employing them in University Courses during the Covid-19 Pandemic

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Necessities, lacks, and pandemics can drive educators to produce materials in the form of technological teaching and learning aids. This study aimed to produce medical terminology flashcards to be used in university courses due to the lack of medical terminology material in Iran and the Covid-19 pandemic. To conduct the study, first, a situation analysis and a needs analysis were done which showed the lack of and need for such material. Next was the designing phase of the flashcards, which consisted of formatting the structure and appearance as well as the content of information of the flashcards; to do so, some flashcard making apps like Anki, Brainspace and Quizlet, Cram, and IDoRecall were identified. However, because of some limitations, Microsoft 7's Word, PowerPoint, and Acrobat were used. Moreover, decisions on the number, size, font, font size, colour, the structure of the flashcards in terms of the type of information and the positioning of information on the front and back of the flashcards were made in this stage. Decisions on the content of the information of the flashcards in terms of the roots, suffixes, prefixes, example sentences, pictures and the Persian equivalents of the terms, were considered in this stage. The medical terminology dictionary entitled "Medical terminology: an illustrated guide by Cohen and DePetris (2014)" was chosen as the reference and the flashcards were developed based on the medical terms of each of the body systems. A flashcard was designed as the "GUIDE" and an independent background colour was used for each body system. The front side of each flashcard contained information on the body system, the medical term, and an example sentence and the backside of the flashcards contained information on the Persian equivalent of the medical term, and the components of the term (root, prefix, suffix) together with their meaning in English. Where it was possible, an image was used. The designed flashcards were then reviewed by students and experts in the field. Moreover, an interview was conducted by professors having experience in teaching medical terminology on ways to improve the quality of the flashcards. The professors suggested some modifications and additions to the flashcard and recommended that the falshcards be used in the university courses during the Covid-19 pandemic following the modifications. The medical terminology flashcards were fine-tuned for the designated university courses. The study has implications for the development of educational materials in the form of teaching and learning aids to fill the existing gaps in the

teaching resources and help the running of quality teaching and learning in pandemics when closures and restrictions dictate distance education.

covid19-01520233

A Systematic Review and Meta-analysis Investigating Knowledge, Attitudes, and Practices about Coronavirus Disease 2019

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Objectives: This study aimed to explore the level of knowledge, attitudes, and practices (KAPs) of the general population during COVID-19 pandemic.

Methods: PubMed/LitCovid, Scopus, and Web of Sciences databases were searched up to 1 January 2021. The Joanna Briggs Institute (JBI) checklist developed for cross-sectional studies were used to appraise the quality of the included studies. The heterogeneity of the included studies were investigated using I2 statistics. Random effect model with a 95% confidence interval applied for meta-analysis .

Results: Forty-eight studies encompassing 76848 participants were included in this review. 56.53% of the participants were female. The mean age of the participants was 33.7 years. Based on meta-analysis, the pooled score of Knowledge, Attitudes, and Practices components were 78.9, 79.8, and 74.1, respectively. 85.42% of the included studies were scored as good quality, 12.50% as fair quality, and the remaining (2.08%) as low quality. 87.5% examined all three components of the KAPs model .

Conclusions: Based on the result of this study, the overall knowledge was at a good level, the attitude was positive and practice was at a satisfactory level .

Keywords: COVID-19, Knowledge, Attitude, Practice

covid19-01540112

Fungal Co-Infections of the Respiratory Tract among Patients with COVID-19 Hospitalized in Intensive Care Units

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Backgrounds: The pandemic of COVID-19 has created a global public health crisis. ICU patients with COVID-19 are prone to infections of fungal origins due to several risk factors. Consequently, the current study was conducted to evaluate the prevalence and microbiology of fungal co-infections of the respiratory tract among ICU patients with COVID-19 in Iran.

Materials and methods: From May to October 2020, sputa and endotracheal aspirates were collected from ICU patients hospitalized with COVID-19 who also were suspected of fungal co-infections according to inclusion criteria. For fungal identification, all samples were analyzed by direct microscopy using KOH 10% and culture. Furthermore, all isolates were subjected to sequencing method.

Results: A total of 73 lung specimens were obtained from patients who met the inclusion criteria. Of these, in 15 cases (20.54 %) fungal co-infections were confirmed. Males were more infected (73.33 %) and all of them were between 49-79 years. Candida albicans (n=8, 61.53%) was the most frequent etiologic agents related to fungal co-infections. Pneumonia (n=15, 100%) and diabetes mellitus (n=8, 53.33%) were documented as the most prevalent underlying conditions. In the current study, 3 out of 15 patients (20%) died.

Conclusion: The frequency of fungal co-infections of the respiratory tract in ICU patients hospitalized with COVID-19 was relatively high and clinicians should pay more attention to it.

Keywords: Co-Infection, Fungal Infections, Respiratory Tract, COVID-19, Iran

covid19-01540113

Evaluation of bacterial co-infections of the respiratory among patients with COVID-19 hospitalized in intensive care units

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Backgrounds: The pandemic of COVID-19 has created a global public health crisis. ICU patients with COVID-19 are prone to infections of bacterial and/or fungal origins due to several risk factors. Consequently, the current study was conducted to evaluate the prevalence and microbiology of fungal and bacterial co-infections of the respiratory tract among ICU patients with COVID-19 in Iran.

Materials and methods: From May to October 2020, sputa and endotracheal aspirates were collected from ICU patients hospitalized with COVID-19 who also were suspected of bacterial and/or fungal co-infections according to inclusion criteria. The etiologic agents of bacterial co-infections were identified using the Vitek 2 identification method. For fungal identification, all samples were analyzed by direct microscopy using KOH 10% and culture. Furthermore, all isolates were subjected to sequencing method.

Results: A total of 73 lung specimens were obtained from patients who met the inclusion criteria. Of these, in 15 cases (20.54 %) fungal and/or bacterial co-infections were confirmed. Males were more infected (73.33 %) and all of them were between 49-79 years. Candida albicans (n=8, 61.53%) and Klebsiella pneumonia (n=5, 38.46%) were the most frequent etiologic agents related to fungal and bacterial co-infections, respectively. Pneumonia (n=15, 100%) and diabetes mellitus (n=8, 53.33%) were documented as the most prevalent underlying conditions. In the current study, 3 out of 15 patients (20%) died.

Conclusion: The frequency of bacterial co-infections of the respiratory tract in ICU patients hospitalized with COVID-19 was relatively low. According to the results, one of the causes of death of these patients could be a secondary infection.

Keywords: Co-Infection, Bacterial Infections, Respiratory Tract, COVID-19, Iran

covid19-01570181

Evaluation of CCL2/CCR2 Axis in Different Age Groups of Patients with Coronavirus Disease 2019

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Evidence suggests that chemokines are involved in recruiting inflammatory immune cells to the site of inflammation. In patients with COVID-19, CCL2/CCR2-axis is essential for monocytes and macrophages locomotion and infiltration to the inflamed lungs. This study aimed to investigate the expression of ligand and receptor of CCL2/CCR2-axis and its relationship with age and other clinical findings of patients with COVID-19. Methods: Forty healthy subjects and forty patients with COVID-19 (up to 20; 20 to 40; 40 to 60 and more than 60 years old) were enrolled in this study. The COVID-19 infection was confirmed by positive real-time polymerase chain reaction (RT-PCR) and radiological data. Peripheral blood samples were taken from healthy subjects and COVID-19 patients. Whole blood samples were also used to measure CCL2 and CCR2 gene expression by the RT-PCR technique. The correlation matrix test evaluated the relationship between CCL2/CCR2 expression and related patients' demographic and clinical variables. Results: The outcomes showed that the CCL2 and CCR2 gene expression was up-regulated in COVID-19 patients, particularly in patients over 40 years compared with the healthy subjects. A positive and significant association was observed between CCL2/CCR2 gene expression, age, and disease severity in patients with COVID-19. Conclusion: It appears that with increasing age, especially in people over 40 years, CCL2/CCR2 expression increases and causes more infiltration of monocytes and macrophages into the lungs and worsening uncontrolled inflammatory condition. The outcome of this study could be helpful in the development of immunotherapy-based therapeutic approaches and inhibition of CCL2/CCR2.

Keywords: CCL2, CCR2, COVID-19

covid19-01580114

The Vital Vaccines of COVID 19

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The virus that causes COVID-19 is likely to continue to be a threat to human health. The new coronavirus SARS-CoV-2 progresses via droplet transmission. SARS-CoV-2 has a novel replication strategy and has enveloped club-similar spike protein projections with a positive-sense huge RNA genome. This virus was thought to be zoonotic, with genetic similarities to bat and pangolin CoV. The new COVID-19 pandemic end point is most probable hearing immunity or widespread obtainability of an effective drug and vaccine. Although several main applicant vaccines - virus-like particle, Nucleic acid (DNA and RNA based vaccines), peptide vaccines, viral vector (non-replicating and replicating vectors), main recombinant proteins, live attenuated and inactivated virusesare presently under diverse phases of expansion and a few vaccine candidates have progressed into clinical trial phase, there are no recognized therapeutic interventions and operational vaccines that can combat the infection caused by this dangerous virus now. This review purposes to investigate the most important vaccines ever developed for COVID-19.

Keywords: COVID-19, SARS-CoV-2, Vaccine

covid19-01590160

Telephone Counselling System of Persian Medicine: Social Accountability in the COVID-19 Pandemics

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Social accountability is an essential factor for improving the health systems. The World Health Organization (WHO) defined social accountability as: "The obligation of the medical schools to direct their education, research and/or service activities towards addressing the priority health concerns of the community, region, and/or nation they have the mandate to serve. Priority health concerns are to be jointly identified by governments, health care organisations, health professionals, and the public".

In the document of modelling social accountability promotion for the Iranian medical education system, it is stated that meeting the health needs of society occurs due to knowledge production and transfer, training responsive human resources, and providing effective services. In this regard, Persian Medicine School as a complementary medicine, arrange their activities around the axes of education, research, and service in response to the needs of society, especially during the critical situation of pandemics, e.g., the COVID-19.

Although quarantine reduces the spread of the COVID 19 but increases the need to receive distance virtual counselling. Seeking information about signs, symptoms, medications, prevention measures, and the possibilities to boost the immune system against the disease are among the questions that must be answered. To control and treat diseases at the time of pandemics and natural disasters, telephone counselling as a type of telemedicine plays an effective role in epidemics.

Under these conditions, the Persian medicine faculties took steps to contribute to this goal by launching a telephone counselling system in line with their social accountability and their major responsibility to prevent and treat the disease. In this regard, the telephone counselling system of Persian medicine faculty of Iran University of Medical Sciences (IUMS) was initiated from March 18, 2020. The first step in designing this system was to produce the required scientific content and train responsive human resources. In this system, first, the demographics and other information of the caller is recorded subsequently, she/he is evaluated for the coronavirus disease. As for content production, first, the signs, symptoms,

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and causes of the coronavirus disease were examined from the perspectives of conventional medicine and Persian medicine.

Finally, clinical guides were developed, based on the reliable sources from Persian medicine, the protocols of the World Health Organization and the Iranian Ministry of Health, and recent articles. As treatment in Persian medicine includes the three components of lifestyle modification, nutritional recommendations, and pharmaceutical recommendations, the services of this system are also set separately as per these three levels. Compilation of clinical guides and exchange of scientific ideas between counsellors in the special virtual group of the system, along with the production of initial related content, improved the quality of responses and updated the services provided to health seekers.

Also, this system took steps to realize the training of an accountable workforce by employing assistants and specialists of Persian medicine for responding the general public. One of the characteristics of students' accountability is their education in the real environment, which was achieved in this system.

Keywords: Social Accountability, COVID 19, Persian Medicine

covid19-01600117

The Role of Speech Therapy in the Guidance and Prevention of Complications of COVID-19

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Awareness to prevent ways of transmitting the virus:

The risk of spreading the corona virus through particles released from the mouth and nose is very high. When sneezing, coughing, or runny nose, people notice wet drops and particles coming out of their mouths and noses and try to cover their mouths and noses, but when breathing normally or speaking, there is less awareness and attention. It should not be forgotten that the voiced material in the larynx is the exhaled air coming out of the lungs. Among the spoken sounds, some have a sudden air outflow from the mouth called "Plosive sounds" such as /p, t, k/ and others have a continuous air out of the mouth and nose such as /s, z, f/ which are known as "Fricative sounds". Therefore, in all spoken sounds, there is an outflow of air from the nasal and oral cavities and the air coming out of the mouth and nose can contain viral particles and droplets.

Risk of transmitting the coronavirus from people with speech disorders to others:

One of the main ways of transmitting the COVID-19 is through the speech-related factors such as 1) psycholinguistic factors (persons who habitually speak quicker, louder with more energy compared with normal mode are characterized by exaggerated articulation), 2) anatomical-based speech disorders (the lack of anterior teeth, the jaw with a class III malocclusion, unrepaired cleft lip and palate, or ones who have oral assistive devices), 3) functional-based speech disorders (people with lisp speech disorders, and also those with severe stuttering.(

Speech therapy care and counseling in COVID-19:

Speech therapy services in various situations are useful for patients with COVID-19. Monitoring of respiratory secretions in hospitalized patients with tracheostomy, vocal tract hygiene, prevention or reduction of physical damage to the vocal cords during respiratory intubation, guidance to the patient's relatives on the speech-induced ways of transmitting the virus, interventions for possible chronic cough after recovery are speech therapy activities in the field of COVID-19.

Keywords: Speech Therapy, COVID-19

covid19-01610189

Identifying the Activities and Challenges of Health-RelatedNon-Governmental Organizations (NGOs) in Response to the COVID-19 Epidemic

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Objective: The spread and severity of the COVID-19 pandemic has occurred to some extent that some examples are shaping intended collective response, governments need the participation of society and the cooperation of a wide range of civil society organizations and institutions. The aim of this study was to identify the activities of NGOs in response to the covid-19 epidemic in Iran and the challenges they confronted.

Methods: The method used in this study was qualitative. Purposeful snowball sampling performed and interviews were carried out with active health-related NGOs representatives who were willing to participate in the study. The interviews were semi-structured individually and not in-person, due to the limitations of the COVID-19 epidemic. Twenty-two interviews were performed until saturation by the researcher's opinion. The main interview questions focused on the participants' experiences of the performance and capacity of NGOs to participate in the control of the COVID-19 epidemic, obstacles and facilitators, the impact of COVID-19 on NGOs activity as well as existing challenges. Data analysis was performed using qualitative content analysis.

Findings: The activities and challenges raised by NGO representatives were identified in 6 main categories including the need for NGOs' participation in confronting the epidemic, responding to the Covid-19 crisis in society, challenges in providing services to the target groups in the COVID-19 crisis, NGOs' challenges in interacting with governmental and non-

governmental institutions, NGOs' information sources in COVID-19 crisis and the strategies for supporting NGOs in fulfilling their activities during crises.

Conclusion: During the COVID-19 crisis, NGOs carry out measures such as providing psychological services, collecting and distributing health items, medicine and food packages, producing educational contents about how to observe the health points about COVID-19 and publishing them. Also, due to their direct communication with the public, NGOs provide emotional support, improve social solidarity, promote healthy behaviors and distribute minimum facilities through their actions. In this way, equity is provided in access, especially for the affected groups from social distancing. NGOs' role as public observers is also important in identifying unmet needs and challenges government inefficiencies during epidemic as well as demanding. On the other hand, the nature of NGOs is such that these entities, like other groups, are not immune to the effects of the COVID-19 epidemic. Government restrictions, inadequate funding, service interruptions or inability to provide services, increased risk of employees' infection due to constant contact with vulnerable and high risk groups, shortage of fixed manpower, and reduced possibility of recruitment and training are major issues that have threatened NGOs' survival and actions during this time. Therefore, it is suggested that in crises the capacity of these civil society organizations should be used more and more by identifying the strengths of NGOs and then reinforcing and encouraging them.

Keywords: NGOs, COVID-19, Activities

covid19-01620182

Investigating the Relationship between Risk Management and Mortality Rate due to Covid-19: A Cross-sectional Study

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Introduction: In late 2019, a new strain of the coronavirus was observed in Wuhan, China. The pandemic caused by the virus spread to all parts of the world and caused an international concern. The aim of this study was to investigate the relationship between risk management index and socio-economic status with the mortality rate of covid-19 .

Methods: The present study is a descriptive and cross-sectional analysis that was conducted using data from different countries in 2020. Using nonlinear regression on cross-section data, the effect of Global Health security index (GHS) and socio-economic status such as population density, population aging and human development index (HDI) on mortality due to Covid-19 was investigated. Analyzes were performed by EViews v-10 at the significance level of less than 0.05.

Results: The results of the study showed that there is a significant inverse relationship between GHS index and mortality rate due to the Covid-19 pandemic. HDI index, population aging and population density were also associated with mortality rate.

Conclusion: Despite considering dimensions such as prevention, identification, response and ability of health systems in global health safety indicators, these factors could not adequately explain the cause of high mortality rate in developed countries. It is better to make a fundamental review of the risk management indicators scores. Also, cultural factors such as people's adherence to laws and the governments-imposed restrictions level should be included in the calculation of this privilege.

Keywords: Risk Management, Mortality Rate, Covid-19

covid19-01630118

A Critique of the Virtual Education and E-Learning Policy Process in the Corona Pandemic in Iran: A Desk Research

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The corona pandemic is the most important global health issue today that directly affects human health and indirectly affects non-health dimensions, especially the educational dimension. The corona epidemic has had far-reaching implications for human safety and public health around the world. However, in dealing with the corona epidemic, governments have pursued different policies in different areas that have not necessarily been without problems. So the purpose of this study is to critique the policy process of virtual education in Corona pandemic in Iran.

This study has been done by desk research method. Accordingly, various sources to achieve the goal have been examined and analysed, such as the Internet, libraries, printed sources and other sources such as sources related to magazines and publications. Therefore, first the words "e-learning", "virtual education" and the words "Corona" and "Covid 19" and then the combination of these two words were searched.

Criticism of the virtual education policy-making process in the Corona crisis in Iran has been examined from four perspectives: problem definition, policy formulation, policy implementation, and policy evaluation. The findings showed that after careful analysis and definition of the problem, challenges such as profound and wide psychological impact on learners, time limit for semester or academic year, volume and timed content and that most courses are designed for real and face-to-face space and its presentation. In cyberspace, there is a need to change the content or convert the content in a format appropriate to the cyberspace; the fading of the emotional space in cyberspace is highlighted. In the policy formulation stage, policies proposed for education included efforts to implement educational programs in new conditions at all levels of society, from wechat to virtual classrooms and television classrooms. However, about 30% of learners were still not able to use virtual education programs, and this is one of the consequences of the widespread attack of this virus in a situation where some of the necessary infrastructure for virtual education in the country is not yet available. In the policy implementation stage, initially, organizing virtual classes required that everyone have access to a computer. This is a complex process that does not have all the tools and teachers have not been trained for this method. There was also the issue

of the Internet and bandwidth. In the policy evaluation stage, the implemented policies have not been evaluated at the national level and these policies have been used cross-sectionally in response to the educational problems created in the Corona crisis.

The stages of the mentioned policy process reflect the current actions that have taken place over time. Each stage is related to the next stage and the last stage is connected to the first stage and intermediate stages, which are a kind of non-linear cycle, intertwined and affected by each other.

Keywords: Policy Process; Virtual Learning; Covid-19

covid19-01650119

Investigation the Quality of Health Instructions Observance and Requirements of Health Ministry in Covid-19 Pandemic at Men's Hairdressers in Birjand (2020)

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Background and Aims: Today, the corona virus has become a global pandemic that has affected most countries in the world. Hairdressers as a public place can transmit infectious diseases such as AIDS, hepatitis, bacterial infections, viral, fungal and skin diseases that are often due to non-compliance with hygiene principles and the use of contaminated equipment. This study aimed to investigate the observance of existing protocols and instructions regarding the prevention and control of coronary heart disease in men's hairdressing in Birjand in 2020.

Material and Methods: In the present cross-sectional descriptive study, 145 hairdressers were referred by random sampling method in Birjand. In this study, data collection tool was a checklist that it was prepared from the guidelines of the second step in the fight against Covid-19 (corona virus) Social distance and health requirements of the environment and work in the hairdressers, Deputy Minister of Health of the Ministry of Health and Medical Education of the Islamic Republic of Iran. The obtained data were analysed using SPSS 18 and Excel statistical software.

Results: According to the results, observance of workplace health and hygiene guidelines in the field of health and personal protection, building health, tool and equipment health and food hygiene were 77, 57.75, 90 and 50.5%, respectively. There was a significant relationship between observance health protocols and age (P 0.05).

Conclusion: The results of the present study showed that the observance of health protocols in men's hairdressers has been relatively desirable in Birjand.

Keywords: Corona Virus, Hairdressers, Health Instructions

covid19-01680130

Challenges of Nursing Students Education in the COVID-19 Epidemic

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Background & Aim: COVID-19 is the biggest challenge that nursing schools have ever faced. The field of nursing requires detailed and in-person education, which is not possible during the COVID-19 epidemic. Online education was chosen as a solution for preventing disruption in the theoretical and clinical education of nursing students in medical sciences universities. This emerging condition has posed new challenges and complexities to nursing students and administrators in medical sciences universities. Therefore, the present study was aimed to identify the challenges of nursing student education. It is hoped that by relying on our study results to take steps to provide more useful and effective solutions.

Methods: This qualitative study was conducted using a conventional content analysis approach. The study population included heads, deputies, and department heads in nursing schools across Iran. Sampling was done purposefully until data saturation. In-depth semi-structured interviews were used to collect data. The recorded interviews were transcribed into text. Qualitative data management was performed using MAXQDA software (2020) and data analysis was performed using Lundman and Graneheim's (2004) approach. To achieve the trustworthiness of qualitative data, four criteria of Goba and Lincoln reliability were used, including credibility, dependability, confirmability, and transferability.

Results: From the analysis of textual data, the following were identified as some of the challenges facing education in Nursing schools: Lack of familiarity of professors with online education; Problem on the Internet; Spend more time by professors preparing content; Uncertainty about the correct delivery of content to students; Impossibility of correct assessment of learning; Holding an online internship; Impossibility of acquiring clinical skills online. Conclusion: There is a relationship between the efficiency of nursing students in the future and the quality and quantity of their learning today. Therefore, identifying nursing students' education challenges will help nursing education managers in educational planning online and in-person when other emerging diseases occur in the future.

Keywords: Nursing Student, Education, COVID-19

covid19-01710124

Potential Impact of COVID-19 on Female Reproductive Health

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The 2019 novel coronavirus (COVID-19) appeared in December 2019 that has leaded tremendous chaos in the world rapidly. Generally, respiratory symptoms are dominant manifestations in infected patients with COVID-19. Surprisingly, early studies reported that women are susceptible to COVID-19. Thus, it is important to determine whether COVID-19 infection can even affect female fertility. The possible risk factors of coronavirus disease 2019 (COVID-19) infection on fertility comes from the abundance of Angiotensin-Converting Enzyme-2 (ACE2) receptor, that aids the virus entry into host cells, on ovary, uterus, vagina and placenta. Moreover, SARS-CoV-2 infection-induced uncontrolled inflammatory responses may cause systemic oxidative stress (OS), whose severe disruptive effects on reproductive system are well-established. As of today, there is emerging evidence, which provides support for the susceptibility of female reproduction health to COVID-19. Undoubtedly, awareness of these findings can result in the timely management of patients. In the present article, we documented a brief overview of female reproductive function manifestations, possible female infertility mechanisms of COVID-19.

Keywords: COVID-19, Female Infertility, Angiotensin-Converting Enzymes 2, Oxidative Stress

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Iranians' beliefs about coronavirus-2 (SARS-CoV-2)

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Knowing the positive and negative beliefs about the coronavirus will help you make better decisions and better control the risks and consequences of the coronavirus epidemic. The aim of this study was to determine the status of belief about the coronavirus in Iranian society. The present study was a cross-sectional study. The research community and sample consisted of members of WhatsApp channels and groups in Ardabil province. According to the results of the online press system, 273 subjects had seen the questionnaire while only 130 had completed it. The collected data were analyzed after the completion time. In the present study, 43 true and false beliefs were examined. According to the results of this study, more than two-thirds of the subjects gave the correct answer to the wrong beliefs and less than one-third of them gave the wrong answer to the wrong beliefs. These results indicate that a large part of the population still does not have correct beliefs about coronavirus or their beliefs in this regard are unacceptable and should not be expected to deal properly with the protocols. The results of this study showed that there are many positive and negative beliefs about coronavirus in society, and this has led to a lack of more effective control of coronavirus and imposing human, economic and social damages on the country and the people. Instead of spreading rumors and spreading false news, it is better to read the news and information received a little more carefully and not simply believe any news. Given the importance and place of coronavirus control in promoting community health and disease prevention, accurate knowledge of policymakers, managers, health care workers, and the public about coronavirus beliefs in the community seems to be necessary for better planning and effective interventions to eliminate misconceptions and reduce the damage of this disease.

Keywords: Positive and Negative Beliefs, Coronavirus-2 (SARS-CoV-2), Iranian

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Determining the Effective Factors on Observing the Health Instructions Related to Coronavirus (COVID-19) in Ardabil Province

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According to the results of studies, field observations and comments of government officials, the rate of people's adherence to health protocols has decreased. Analyzing the factors influencing people to follow the instructions and recommendations of the National Coronavirus Headquarters will help them to respond better, make better decisions, and control the risks and consequences of a future coronavirus epidemic. The aim of this study was to determine the factors affecting the observance of health guidelines related to coronavirus (COVID-19) in Ardabil province in 2020. This study was a cross-sectional study. The research population and sample consisted of members of WhatsApp channels and groups in Ardabil province. Sampling was online and available. The research tool was a researcher-made questionnaire whose validity and reliability was obtained. The questionnaire had two parts including demographic part and effective factors in observing the health standards related to health protocols about coronavirus. According to the results of the online press system, 266 people had visited the questionnaire, while only 128 had completed it. Data were entered into SPSS26 software and analyzed. The mean age of the subjects was 35.98±9.45. More than 60 factors are involved in following the health guidelines related to coronavirus (Covid-19) in Ardabil province. "Lack of the previous history of Covid 19 disease and lack of understanding of the severity of coronavirus risk", "Do not think about the consequences and complications of the recommended behaviors and instructions", "Do not believe in the positive effect of following the recommended protocols and instructions" , "Lack of adequate facilities for screening and detection of suspected coronaviruses", "Conflict of recommended behaviors and instructions with personal and family interests or jeopardizing individual and family interests with home quarantine", "Lack of other people to follow recommended instructions "," Do not share the goal of the people of the society with the government of men about the recommended behaviors"," Facing cultural and economic deprivation if the recommended behaviors and instructions are followed "," Expectations of families to perform the tradition of mercy even In Crohn's terms "," Adherence to family and tribal traditions such as attending the funerals and mourning ceremonies "," False news and rumors and conflicts in individuals "," Sending very simple, very vague or impractical messages about Coronavirus and Covid 19 "," Impact of sanctions and rising prices and hardening of life ","

Lack of road control and lack of travel restrictions from the beginning of the coronavirus epidemic " and the lack of strong and restrictive coercive regulations such as heavy fines, imprisonment, punishment" were the main reasons why people did not follow health advice. According to the amount of factor loads, managerial, personal, social, media, economic and cultural factors are the most important factors, respectively, which cause the lack of observation of the health recommendations of the Corona National Headquarters by people.

The results of this study showed that many managerial, personal, social, media, economic and cultural factors are effective in people following the recommendations of the National CoronaVirus Headquarters, and if these factors are not identified and considered by those involved, it will be difficult to control the coronavirus. Wet and many human, economic and social damages will be imposed on the country. Given the importance of coronavirus control in promoting community health and preventing the spread of this disease and its dangers, more attention to the factors affecting people's compliance with the instructions and recommendations of the National Coronavirus Headquarters to plan and perform more effective interventions is inevitable.

Explanation Reasons for Following the Approvals and Protocols of the National Corona Virus Headquarters: A Qualitative Study

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Explaining the reasons for following the instructions and recommendations of the National Coronavirus Headquarters helps the better response, better decision-making and control of the risks and consequences of coronavirus epidemics in the future. This study was conducted with aim of explaining the reasons for observation of the approvals and recommendations of the National Corona Virus Headquarters by people from the perspective of academics. The present study is a qualitative study with a conventional content analysis approach. Participants were 19 professors and experts from the University of Medical Sciences who had sufficient information on the subject. A targeted sampling method with maximum variation in characteristics such as age, gender, education, field of study, and work experience was used to select participants. Data were obtained through semi-structured interviews to data saturation and analyzed simultaneously. From the analysis of interviews, 5 main themes and 7 sub-themes were explored as follows: 1) Normalization and simplification of coronavirus risk with 5 subcategories, e.g., learning weakness, inconsistency in received information, incorrect social perception of coronavirus, welfare status and Low economic growth of the people and perceived losses and impracticality of some of the policies and approvals of the National Coronavirus Headquarters; 2) Weak communication, trust and acceptance of the Coronavirus Headquarters; 3) Lack of sufficient motivation to follow the people; 4) Family–cultural conditions with two subclasses, e.g., the emotionality of Iranian families and the sediments received, and 5) Weakness in supervision and compassion in the use of force. The results of this study showed that from the perspective of academics, there are reasons for people to observe the recommendations of the National Corona Virus Headquarters, and this has led to a lack of more effective control of coronavirus and human, economic and social damage to the country. Given the importance of coronavirus control in promoting community health and prevention of this disease and its dangers, it is necessary to better understand the reasons for people to observe the instructions and recommendations of the National Coronavirus Headquarters to plan and carry out effective interventions.

Keywords: dherence, Protocols, Coronavirus, Qualitative Study

covid19-01740134

Explaining the Contributions of the CoronaVirus Epidemic to Life and Health: A Qualitative Study

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This study is a library and review study that by searching the scientific databases and articles of available news agencies, seeks out the corona virus epidemic contributions to the dimensions of life and health, and using the available articles to explain the corona virus epidemic contributions. Take a look at the dimensions of life to gain a new perspective on the corona virus epidemic and to cope better with the aftermath of the corona epidemic. The results of coronavirus epidemics show that in addition to many complications such as increased morbidity and mortality rates and hospital costs, the impact on physical – mental health of people including obesity and overweight, hyperlipidemia, decreased resilience the medical staff also had a negative impact on the incomes of governments and nations, tourism, cinema, the quality of education, high water consumption, etc. some of which are: our food style has changed, telecommuting has taken its place, seriously we learned to take very care of the workplace, to spread healthy habits at home, to say no and to be blunt, to find home the safest place, to experience online education and virtual applications, to improve the infrastructure of education and e-learning, to live under the guise of a mask, leisure culture. It changed, we learned how to have fun and picnic at home, the level of public awareness of health standards increased significantly, improving the culture of holding public ceremonies in the community, promoting the culture of sacrifice and forgiveness and increasing participation in helping fellow human beings, promoting attention to patients, elderly and at-risk groups, improving literacy and eating patterns, straw air pollution, reduction of accidents rates, promotion of the culture of pilgrimage to holy shrines, cooperation of non-governmental and revolutionary institutions with government agencies, acceptable equipment diagnostic and treatment centers, increasing of applied research, increase creativity, innovations especially in hospital equipment, disinfectants, anti-coronary vaccines, etc. The results of this study showed that looking at the coronavirus should not be a negative view, but the coronavirus, in addition to its side effects, has also had blessings that should be seen as improving lifestyle and dietary patterns, and improving attitudes towards health standards are

among them. Given the importance of coronavirus control in promoting community health and prevention of this disease and understanding its dangers, it is necessary to better understand the benefits of coronavirus and adapt to it by planning and performing more effective interventions in this field.

Keywords: Corona Virus Epidemic, Life and Health, Contributions

Can COVID-19 be a Risk Factor for Tuberculosis?

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Tuberculosis is a chronic bacterial disease often caused by mycobacterium tuberculosis. In 2017, 10 million people were infected to and 1.6 million people died of tuberculosis. In patients with pulmonary TB, infectious aerosols are distributed in air and enters other's lungs in inspiration. It passes mucociliary defense line and enters pulmonary terminal alveolus where it proliferates and may get disseminated to whole body through blood circulation. Delayed allergic reaction and cellular immunity are formed 4 to 8 weeks after infection. In 90-95% of patients, cellular immunity manages to inhibit bacillus proliferation. Though, a number of bacillus may persist and get reactivated in immunocompromised patients within months to years and cause re-infection and active TB. Nearly, a third of world's population are carrying latent TB. Immune system suppression in patients suffering HIV, diabetes, malnutrition, smoking, alcohol abuse, opium addiction, and immunosuppressive drugs, increase the risk of tuberculosis disease in patients with latent TB infection.

According to the latest statistics published by WHO, a total of 143,445,675 approved COVID-19 cases and 3,051,736 deaths have been reported since the first case report in Wuhan in April, 22, 2021. The demolishing consequences of viral infections are mainly caused due to uncontrolled excess release of proinflammatory cytokines. Proinflammatory cytokine overexpression is stimulated through different pathways including overexpression of Toll Like Receptors (TLR) (5). Most COVID-19 severe cases are presented with uncontrolled elevated level of proinflammatory cytokines such as IL-6, IL-1β, IL-2 IL-8, IL-17, G- CSF, GM- CSF, IP10, MCP1, CCL3, and TNF which is called cytokine storm. Elevated level of proinflammatory cytokines may lead to shock and damage to different organs including heart, kidney, liver, and respiratory system. In terms of pathophysiology, TB is an unresolved inflammation caused by host inability to remove the pathogen. Both proinflammatory and anti-inflammatory pathways are activated and deactivated in TB. Accordingly, the response

varies based on disease stage and the involved organ. This imbalance, rather than a sever inflammatory response is the characteristic feature of TB. Previous studies showed that proinflammatory cytokine overexpression such as TNF and IL-6 exacerbates TB. In COVID-19 patients, we are facing immune system imbalance due to cytokine storm. Thus, COVID-19 may be a predisposing factor to turn latent TB to active TB. If COVID-19 act as a risk factor for TB occurrence, the COVID-19 burden will prevent form TB global elimination. Since the effect of COVID-19 on TB is not yet investigated, it is suggested to evaluate the relationship between COVID-19 and active TB risk in the future studies.

Keywords: COVID-19, Risk Factor, Tuberculosis, Cytokines

COVID-19 and Digital Epidemiology

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For understanding and responding to Covid-19, the first efforts focus on describing the clinical course, case fatality rate, and treatment of patients. The epidemic of MERS, pandemic influenza, etc. has determined that recognition of disease epidemiology and its possible effects is a priority. Also, real-time analyses of epidemiological data are needed to increase situational awareness and inform interventions [6]. Epidemiology is the study of the occurrence, distribution, and determinants of health-related states or events in a given population, and the application of this study to the control and management of other health problems. In the recent decade, the explosion of internet and mobile phone usage has led to a new type of epidemiology known as Digital Epidemiology.

Digital data include mobile phone network data, data generated by sensors, and data collected at call centers, social media posts (e.g. Twitter and Instagram), search terms and webpage access logs (e.g. Google ‹Google Flu Trends (GFT) ‹Google Trends, Wikipedia views). The potential application of this new branch is numerous and multifaceted, e.g. disease monitoring and detecting, and examining the new substance use pattern [12]. A large proportion of sick people search for relevant health information using internet search engines, and many share their experience on social media. This type of data collection of health problems are provided time-stamped and geo-tagged (geographic location). Thus, we can study the general health of a population in real-time using such digital traces. Google Flu Trends (GFT) is an early example of digital epidemiology, using search queries to track influenza-like illnesses (ILIs) [9 & 10]. In 2009, researchers from Google and the US Centers for Disease Control and Prevention (CDC) published a method to estimate flu activity by region using search queries. The search engine query data of GFT reflect the influenza cases in real-time and optimize the detecting time and appropriate act against the epidemics. For many years, Google Trends (GT) has served as a prime data source for digital epidemiology. Despite its growing importance, digital epidemiology is faced with various challenges, such as privacy issues, the potential nature of skewed data, information accuracy, and the effect of news coverage, media, and the general population's knowledge about diseases on the search volume. Therefore, along with the increasing use of smartphones, expanding social networks among the public, developing online databases, and providing proper analytical methods, double the importance of using digital epidemiology in tracking Covid-19.

Keywords: COVID-19, Digital Epidemiology

Covid-19 Pandemic Status and the Human Microbiome Pattern:
Real Challenges and Future Perspectives

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Coronavirus (COVID-19) poses an unprecedented challenge to both individuals and societies that impact health behavior in many ways. Among the main recommendations to fight this virus are to reducing social contact, respecting physical distancing, strict respiratory etiquette, and complying to hand hygiene rules. Quarantine and confinement are also indicated for the prevention of disease transmission in the case of individuals with suspected or confirmed infection.Restrictions or prohibitions on social communication, temporary quarantine, or physical distance, in addition to changes in dietary lifestyle and non-dietary lifestyles, affect mental and social health. The human microbiome is able to generate metabolites that can be effective on the function of immune cells and play important role in health and disease.Several intrinsic and extrinsic factors can change the normal microbiome of the body including genetic, age, weight, diet, physical activity, Smoking behavior, antibiotics, and stress.

It has been strongly suggested that preventing interpersonal contact, disinfecting hands, strict respiratory rules, and quarantine regime have the capacity to change the environmental microbiome; thus, it could be associated with alterations in human microbiome pattern and function. Regarding the evidence associated with a reduction in exposure to non-pathogenic commensal bacteria and dysbiosis, understanding the changes in the human microbiome during the COVID-19 pandemic era may help to use novel strategies in the therapeutic interventions.

In this article, we focus on how SARS-CoV-2 pandemic regulatory rules can affect the human microbiome. We also provide a comprehensive insight into the challenges, negative or positive outcomes in relevance to the microbiome alteration pattern during the Covide-19 pandemic.

Keywords: COVID-19, Lifestyle, Human Microbiome

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Implications of Spiritual Health during the Corona Pandemic:
A Review Study

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Introduction: With the spread of the contagious and mysterious pandemic COVID-19 people around the world have been infected with this disease and some have lost their lives, and this has caused a lot of psychosocial problems among the patients and those who have recovered from this disease. During the epidemic of the virus, religious and spiritual beliefs were able to create a higher level of hope and a lower level of fear, anxiety and sadness among individuals. The consequences and problems of this disease, not only raised various questions in the religious community; rather, it led the elites and those interested in the field of spiritual health to answer the questions arising from this pandemic, to explain the dimensions of development and promotion of spiritual health in society. The aim of this study was to review the consequences of spiritual health during the corona.

Methods: The present study is a narrative review with a matrix approach that was conducted after searching Persian and English articles in google scholar, PubMed, MEDLINE databases and in the period from Janouary 2020 to April 2021. Keywords for the search included the Persian words "spiritual health", "mental health" and COVID-19 "in combination or separately. Screening of articles in 4 stages and their qualitative evaluation was done using the tools of evaluation and critique of various studies based on the recommendations of the Joanna Briggs Institute. Data were analyzed based on qualitative content analysis.

Results: The number of findings related to the subject of the present study was 2500 articles, of which 24 articles were selected and after removing irrelevant items, 13 articles were selected. From the analysis of related articles, three main categories emerged. These categories include "psychological well-being", "innovative services" and "physical health". In the category of "psychological well-being" such topics as strong self-management, feeling calm, fighting against misconceptions about corona, motivation, increasing patience and enduring hardships, reducing the consequences of social isolation are mentioned. In the "Innovative Services" category, spiritual health includes topics such as: Creating a spiritual care hotline project with the aim of providing a free and specialized space to listen to and

support all people who face spiritual and religious problems in these difficult, online counseling services, the establishment of a spiritual health research center, and the development of the spiritual competencies of health care providers are mentioned.

Conclusion: Based on the results of spiritual health, it had consequences in the corona period and in addition to affecting the body and mind, led to the emergence of innovative and new services whose expansion can help establish and promote spiritual values in society.

Keywords: Spiritual Health, Corona, Mental Health

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Roy Adaptation Model in Patient with COVID-19

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Background and Aims: COVID-19 is an acute disease of the respiratory system with diffuse inflammation. In this disease, a wide range of symptoms can cause biological and psychological changes in performance. Skillful preparation of the patient to find the optimal way to deal with this disease, as well as maintaining the independence and vitality of life, is an important part of the treatment process in these patients. So the aim of this study was to use Roy's adaptability model in patient care for COVID-19 and to prepare the patient to deal with the problems caused by the disease based on the nursing process, which is made according to the instructions of the Roy model.

Materials & Methods: The case report study was conducted in March 2020 in one of the hospitals of Qom University of Medical Sciences. A patient with COVID19 was examined and the Roy pattern was performed on him. Nursing care was performed based on the Roy nursing process in 6 stages.

Results: The results of the study showed that the patient had maladaptive behaviors in 4 modes (physiological, adaptation of self-perception, role-playing, independence and dependence). After performing nursing care based on the Roy adaptation pattern, maladaptive behaviors decreased.

Conclusion: According to the results of the present study, Implement a nursing care program based on Roy adaptation model can be effective on the physical, psychological adaptation and reduction of maladaptive behaviors in patient with COVID 19. In this regard, Nurses can play a more effective role in improving the maladaptive behaviors of these patients by applying nursing care based on the adaptation model.

Keywords: COVID19, Roy's Adaptability Model, Nurse

covid19-01900138

Anxiety, Stress and Depression of Nurses in Intensive Care Units in Pandemic COVID 19

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Background: Lack of definitive treatment for patients with COVID 19 and close contact with patients in intensive care units has caused concern among nurses.

Objectives: the aim of this study was to investigate the anxiety, stress and depression of nurses in intensive care units in Pandemic COVID 19 .

Materials and Methods: A cross-sectional study was performed in March to June 2020 on 100 nurses of intensive care units in Pandemic COVID 19 in the hospitals of Qom University of Medical Sciences. Sampling method was available. Data collection tools included DASS-21 Anxiety, Stress and Depression Inventory. Data were analyzed using SPSS13 with descriptive statistics, independent t-test and ANOVA.

Results: The mean age of participants was 30 ± 1.5 years. The mean score of depression was 11.4 ± 1.03, anxiety was 13 ± 0.9 and stress was 22.5 ± 1.8. According to the independent t-test, anxiety, stress and depression scores were higher in women and people with less work experience .

Conclusion: According to the findings of this study, nurses in the intensive care unit of the COVID 19 pandemic had mild depression, moderate stress and anxiety. Women and people with less work experience had more anxiety, stress and depression. Therefore, it is suggested that hospital managers provide psychological support to strengthen their ability to cope with anxiety, stress and depression.

Keywords: COVID 19, Nurse, Anxiety, Stress, Depression

covid19-01920143

Mental Health and Posttraumatic Stress Disorder in Students of Rafsanjan University of Medical Sciences during COVID-19 Pandemic in 2020

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Background and Objectives: with the announcement of the coronavirus pandemic by the World Health Organization, many people experienced a lot of panic. The disease was a major threat to the physical and mental health of individuals because of the rapid spread and severe mortality. The continued spread and closure of schools and universities can affect students' mental health. This study aimed to investigate the frequency of posttraumatic stress disorder, anxiety, depression, and stress in students of Rafsanjan University of Medical Sciences during the coronavirus outbreak in 2020.

Materials and Methods: this cross-sectional descriptive study was conducted on students of Rafsanjan University of Medical Sciences. The sample size was 351 individuals selected by convenience sampling method based on inclusion criteria. Data were collected by DASS-21 and IES-R. Data were analyzed by SPSS18 using the chi-squared and Fisher's exact tests.

Results: according to the results, the majority of students had moderate anxiety 135(33.6%) and posttraumatic stress disorder 92(26.2%). Depression 118(38.5%) and stress 194(55.3%) were common in most students. Analysis of logistic regression showed a significant correlation between anxiety, stress, depression, and posttraumatic stress disorder.

Conclusion: the results suggest mental health problems among medical students. Therefore, it is recommended to implement psychological counseling programs to reduce these cases.

Keywords: COVID-19, Students, Anxiety, Depression, Stress, Posttraumatic Stress Disorder (PTSD), Rafsanjan

covid19-01940145

Evaluation of Stress, Anxiety and Depression in Nurses Caring for Coronavirus Patients

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Objectives: Nurses are the first care workers who are most exposed to patients with coronavirus in terms of contact and time. Due to the contagious nature of this disease and the unknown nature of this virus, nurses naturally care for patients with problems such as depression, Axiety and stress. The purpose of this study was to investigate the state of stress, anxiety and depression in nurses caring for coronavirus patients.

Methods: This descriptive-analytical cross-sectional study was performed on 479 nurses working in coronary wards from June to December 2020. The research instrument was a demographic questionnaire and the criteria for depression, anxiety, and stress DAS-21. Data were collected in SPSS-21 software and analyzed by using descriptive and analytical tests and statistical methods.

Results: The most of nurses surveyed were female, married, had a bachelor's degree and were worked in the internal and ICU Corona wards, the average age was 33 years and the average work experience was 10 years. The results showed that 25% of the nurses working in the corona ward experienced moderate to severe stress, only 10% of the nurses working in the corona ward reported normal stress, and 72% of the nurses working in the corona ward experienced moderate to severe anxiety. The prevalence of depression was 72.4% and about 43% of nurses had moderate to severe depression. There was a significant relationship between work experience, employment status and work shift with depression, anxiety and stress, but there was no significant relationship between gender, age, marital status, workplace and overtime hours with depression, anxiety and stress.

Conclusion: According to the research findings which indicate that this group should be considered and supported so that their mental health is not impaired, so it is recommended that psychiatric counseling support systems, reduce working hours, teach coping methods And teach stress management to nurses.

Keywords: Depression, Anxiety, Stress, Nurse, Coronavirus

covid19-01950153

COVID-19 Endangers the Health of Society by Disrupting Social Participation, Home Integrations, and Productive Activities

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Objective: Proper social participation and involvement in the daily activities of life increases the feeling of attachment, and increases a person's sense of worth, belonging, and dependence on society. The purpose of this study is to provide insight into the effects of the COVID-19 epidemic on integration into home activities, community, productive activities.

Methods: In June 2020, the Social Integration Questionnaire (CIQ), which measures integration at home, integration in the community, and integration into purposeful and productive activities, was transcribed with the required demographic information in a web-based format. A total of 461 people (mean age 36.86±5.8 years) completed the social integration questionnaire in a cross-sectional study. The data were analyzed using SPSS software version 22.

Results: Comparing the participants score in the Community Integration Questionnaire before and after the COVID-19 pandemic showed that COVID-19 reduced home integration (from 4.6909±2.84 to 3.5938±2.80, t= 11.151 p).

Keywords: Home Integration; Social Integration; Productive Activity; community Integration Questionnaire; COVID-19; Activities of Daily Living

Investigating the Effect of Covid-19 Prevalence on Demographic Variables and its Relationship with Social Participation

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Background: While Covid 19 has become a pandemic, public health measures to cut off human-to-human transmission may include quarantine and social isolation. The aim of this study was to provide an insight into the effects of the Covid 19 epidemic on demographic variables and their relationship to the level of social participation during the epidemic.

Methods: In June 2016, the Social Integration Questionnaire (CIQ) was transcribed along with the required demographic information in a web-based format. A total of 461 people (mean age 36.86. 5.8 years) completed the questionnaire in a cross-sectional study. The effects of Covid-19 on social interaction were then calculated by analyzing CIQ scores before and after the outbreak of Covid-19 and the data were analyzed using SPSS software version 26 .

Results: Quarantine measures had the most damage in the reference group (under 24 years old) because compared to before the corona outbreak, except for participation in productive activities (compared to the old group) in all cases and among all age groups, integration They and the total score of their questionnaire has decreased.

Conclusion: After the outbreak of Covid 19, the age group under 24 years and then the old age group in all areas have experienced a large decrease in social participation, which shows more attention to these two groups during the Covid 19 pandemic. In order to reduce the negative psychosocial effects of quarantine, the implementation of national strategies to promote social participation through ICT-based programs is proposed.

Keywords: Covid-19, Social Participation, Demographic Variables

covid19-01960146

Investigation of Serum Level of IL-6 and Adiponectin in Patients with Covid-19 and Their Association with Disease Severity

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Introduction: The SARS-CoV-2 pandemic has led worldwide research to identify risk factors associated with mortality in critically ill COVID-19 patients. The studies demonstrated COVID-19 mortality may be due to "cytokine syndrome" including IL-6, and obesity has associated with increased risk of severe or fatal disease. The aim of this study was to evaluate the serum levels of IL-6 and adiponectin (as the most abundant adipokines secreted from adipose tissue) in patients with COVID-19 and their relationship with disease progression.

Material & Methods: Serum samples of 80 patients with Covid-19 were examined at the beginning of admission to ICU and non-ICU to evaluate IL-6 and adiponectin by ELISA technique. Analyses were conducted using Mann-Whitney and Spearman correlation tests.

Results: The mean serum level of adiponectin in patients admitted to ICU (10.18 ± 15.4 ng / ml) was significantly higher than those admitted to non-ICU ($P = 0.001$, 3.14 ± 3ng / ml), the mean serum level of 6-IL showed a similar trend, however this trend was not statistically significant ($P=0.18$). In addition, a positive correlation was observed between the serum levels of adiponectin and IL-6 ($R = 0.2$, $P = 0.03$).

Discussion: The results of the present study showed that the serum level of adiponectin was significantly higher in Covid-19 patients with extensive involvement of lung. This finding is important because the lung is the target organ for adiponectin signaling, and as a result, impaired adiponectin may be associated with pulmonary problems in Covid-19 patients.

Keywords: COVID-19, IL-6, Adiponectin

covid19-01990149

Explaining the Experiences of Health Care Providers during the Covid 19 Pandemic: A Qualitative Study

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Background and purpose: Health service providers in different countries have different experiences in epidemic conditions based on the available resources of nursing, health care system and cultural background. The aim of this study was to explain the experiences of health care providers during the Covid pandemic.

Materials and methods: In this qualitative study, 36 medical personnel were included in the study by purposive sampling method and based on the inclusion criteria of health workers in East of Guilan. Semi-structured interviews were used to collect data using interview guide questions and the interviews continued until data saturation. Data analysis was performed based on the conventional content analysis approach and simultaneously with data collection. All ethical considerations related to conducting the study on human samples were taken into account.

Results: Data analysis led to the extraction of 3 main categories and 10 subcategories: Peaceful coexistence (scientific-professional development, increased emotional closeness, resilience in critical situations) / outburst of despair (burnout at wards, annoying obsessions, on the verge of decision duality, in the strait of fear) / in the darkness of grief (in Aura of depression, painful avoidance of people, in financial distress).

Conclusion: The analysis of the experiences of health care providers in the Covid-19 pandemic period was explained based on the three main categories of peaceful coexistence, outburst of despair and grief in the dark. Paying attention to the physical, psycho-social, emotional and financial challenges and needs of health care providers, especially during the pandemic, is an undeniable necessity and requires the full attention and support of relevant officials and society.

Keywords: Health Service Providers, Covid-19, Qualitative Study

covid19-02010273

Prevalence of Post-Traumatic Stress Disorder (PTSD) among Health Care Workers during COVID-19 Pandemic

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Since the beginning of the COVID-19 pandemic, healthcare workers are at risk of post-traumatic stress disorder (PTSD) due to occupational exposure to psychological stressor. The aim of present study was to determine the prevalence of PTSD among health care workers during COVID-19 pandemic.

This cross-sectional study was conducted during 2021 on healthcare workers. 100 health care workers were studied. Participants answered an online survey including questions about socio demographic data, Impact of Event Scale (IES-15), and short screening scale for DSM-IV PTSD. Data were analyzed using the SPSS software version 20 and P- value less than 0.05 was considered statistically significant .

The results of this study revealed that mean score of IES and PTSD was 44.3 ± 13.36 and 4.76 ± 2.17, respectively. The prevalence of PTSD symptoms was 75% in the study population according to the IES scale. Furthermore, the prevalence of PTSD did not differ between male and female.

The finding provide circumstantial evidence to support the notion that occupational exposure to psychological stressor during COVID-19 pandemic is associated with PTSD among health care workers. Additional studies with larger sample sizes and follow up among subjects occupationally exposed to psychological stressor during COVID-19 are required to further substantiate these findings and clarify the chronic effects of the COVID-19 pandemic on the mental health of health care workers, with particular focus on PTSD.

Keywords: PTSD- Health Care Workers, COVID-19

covid19-02030150

COVID -19 and Medical Staff's Mental Health in Eeducational Hospitals in Alborz Province, Iran

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Background: COVID-19 pandemic is ongoing. COVID-19 is a very different condition to previous conditions experienced by most societies and this novel disease has created especially perplexing conditions for many members of the public and Health-Care Workers (HCW). HCW have many concerns ,including: (i) safety and personal protective equipment; (ii) assigned tasks in the inpatient department of COVID-19 patients; (iii) the potential need to quarantine after work; (iv) getting infected and transmitting the infection to their families; and (v) stigma.

Aim : Due to the need to determine the mental health status of health care workers(HCWs) for further diagnostic, therapeutic and supportive measures and related planning, in this study, we examined the mental health status of HCWs during COVID-19 pandemic.

Methods: This study is a cross-sectional study conducted at the level of 9 educational hospitals in Alborz province (multi-centers study) that have accepted patients with COVID-19. The study was conducted by sending an online questionnaire to the staff and collecting and evaluating its results. We used DASS-21 Questionnaire to assess the depression, anxiety, and stress of HCWs.

Results: Among health care providers, 41.7%, 51.2%, and 33.9 %, respectively, had degrees of depression, anxiety, and stress. Depression was more common in women, bachelor's

degree, residency in medicine, over the age of 40 and doctors and staff in direct contact with patients. Anxiety was more prevalent in women, higher education, being a medical resident, in the age range of 30 to 40 years, nurses, bachelor's degree personnel and staff in direct contact with patients. Also, stress in women, bachelor's degree, residency in medicine, age range 30 to 40 years, doctors and staff in direct contact with patients, has a higher prevalence. There was a positive linear correlation between depression and anxiety, depression and stress, and stress and anxiety among HCWs.

Conclusion: Due to the important role of Health Care Workers, especially during the recent pandemic in the field of COVID-19, health policymakers should pay special attention to the mental health of them. The provision of adequate personnel in accordance with the capabilities of health systems, the prioritization of personal protective equipment, and the establishment of appropriate mental health-care systems, such as online systems and face-to-face counseling, could play an important role in improving the mental health of HCW.

Keywords: COVID-19, Mental Health, Medical Staff

covid19-02030152

Prevalence and Severity of Depression, Anxiety, Stress and Perceived Stress in Hospitalized Patients with COVID-19

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Purpose: COVID-19, a disease that can be transmitted from person to person and with serious health problems, can be associated with mental health disorders. With the increase in the number of infected patients and their deaths, many patients may experience psychological distress and physical problems. Unpredictability and uncertainty of the disease condition of different aspects of epidemiology and effectivemethods of treatment, puts people exposed to stressful situations . Fear of the consequences of a deadly disease, combined with severe anxiety and mental distress, which can coincide with insomnia and the physical effects of the disease, can create unfavorable conditions for patients due to the aggravation of mental health disorders In this study, we evaluated the prevalence and severity of depression, anxiety, stress, and stress perception among a group of patients with COVID-19 who were hospitalized.

Methods: In this cross-sectional study, 106 inpatients with COVID-19 who had stable clinical conditions were evaluated psychologically by two questionnaires: Depression, Anxiety and Stress Scales-21 (DASS-21) and Perceived Stress Scale (PSS-4).

Results: More than one third of patients had underlying disease. Overall, 97.2% of patients with COVID-19 had some degree of depression. Severity of depression, according to the DASS questionnaire, was 85.8%. All patients (100%) had severe (0.9%) and very severe (99.1%) anxiety. Regarding to stress levels, 97.1% of patients had some degree of stress. In the severity of stress category, 84.9% of patients had severe and very severe stress. In terms of perceived stress, 73.6% of patients had high levels and 22.6% had moderate levels. A positive strong correlation was found between depression and perceived stress (Coefficient: 0.33, P-value: 0.001). Correlation between anxiety and perceived stress was statistically significant (Coefficient: 0.2, P-value: 0.04).

Conclusions: The existence of such a high prevalence and severity of psychiatric disorders among hospitalized patients with COVID-19 underscores the need for serious attention to the mental health status of these patients. It seems that health policymakers need to have coherent plans for screening cases and managing related situations.

Keywords: COVID-19, Patients, Mental Health

covid19-02060157

Evaluation of Mental Health among Hospitalized COVID-19 Patients

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Up to 22 April 2021, the new coronavirus (COVID-19) has infected 143,184,614, with 3,047,322 deaths worldwide. These patients are being admitted to hospitals without any companion and may face complex mental health issues. Patients diagnosed with COVID-19 must be treated in isolation. Through clinical observation, many patients developed anxiety after isolation treatment. Anxiety, as a kind of psychological stress, will provoke a series of physiological circumstances and cause a decrease in immunity. Fear of disease, anxiety, and more importantly, depression are some of the issues people should deal with. The aim of the study was determining the mental health of hospitalized patients with Covid 19. In this cross-sectional study 143 hospitalized patients of Sina (Farshchian) educational and therapeutic centre in Hamadan in 2020 with Covid 19 who had inclusion criteria participated in this study. Inclusion criteria are: age over 18 years, full consciousness, lack of physical and mental disabilities, diagnosis of coronavirus with the approval of an infectious disease specialist, no history of mental disorders, the ability to communicate with the researcher. Participants who did not complete the questionnaires were excluded from the study. Data were collected using the demographic information questionnaire and DASS21. Data was analysed with SPSS21. A total 143 patients (49% female and 51% male) with COVID-19 were included in the study. The mean±SD age was 53.6±13.67 years at range 28 to 88 years. In this study, more than half of the participants were over 40 years old. Most patients were married (81.1%). Many participants were illiterate (45/143, 31.531.5%), and half of the subjects were un-employee (57.3%). The average score of depression, anxiety and stress for all participants with COVID-19 was 8.12±7.12, 11.74±6.02 and 13.92±6.80, respectively. The results of this study showed 56 patients were mildly to moderate depressed (37.8%).The most patients had moderate symptoms of anxiety (34.3%). 20.3% (n=29) and 11.2% (n=16) had severe and very severe anxiety, respectively. In addition, no symptoms of stress were observed in 69.2% of the patients. 30.8% 0f patients had mild to moderate of symptoms of stress. In general, the results showed that the mental health of patients with Covid 19 is threatened and planning to prevent this risk seems necessary.

Keywords: COVID-19; Mental Health; Hospitalized Patients

covid19-02070159

Exploring the Challenges of Coping with COVID- 19 in the Workplace: A Qualitative Study

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Background and Aim: Workplaces play a very important role in controlling or spreading the prevalence of COVID-19 and the lack of proper implementation of health protocols in these environments may increase the risk of employees getting Covid19 and consequently increase the prevalence of this disease in the family and community. Recognition of the limitations and problems that prohibit the implementation of health protocols in the workplaces are important to design an effective program for control COVID-19; we aim to explore the challenges of coping with covid19 in the workplace.

Methods: The present qualitative study adopted a conventional content analysis approach. Sampling was purposive in type with maximum variety of work processes. The data were collected through semi-structured interviews. Interviews were conducted to the point of information saturation. A total of 12 occupational health managers were entered the interview, 8 of whom were male and 4 persons were female. The duration of each interview varied between 30 to 90 minutes. Data analysis was performed simultaneously with data collection. The text of the interviews were re-read several times and analyzed using Max-QDA version 10 software.

Results: Qualitative inductive content analysis of participants resulted in 2 main categories and 10 sub-categories. The main categories included: internal factors contain 6 sub categories (job nature, budget allocation, individual factors, unplanned, manpower and equipment, support of managers) and external factors contain 4 sub categories (macro policies, access to valid information, black market, Inter-sectoral coordination).

Conclusion: The results showed that organizations and industries deal many internal and external challenges in coping with the COVID-19 crisis. Paying attention to these limitations and trying to eliminate them, especially by government organizations, employers and managers can help in the effective management of this crisis.

Keywords: Qualitative Study, Workplace, COVID-19

covid19-02090161

Evaluating the Literacy Level of Patients with Novel Corono Virus (COVID19) in Asian Area: A Systematic Review

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Coronavirus disease 2019 was first reported in Wuhan, China, in December 2019 and has since spread globally. According to the World Health Organization up to 9 April 2020 ,1356780 cases were confirmed. This organization declared the COVID-19 emergency to be the sixth public health emergency of international concern (PHEIC) on 30 January 2020. This epidemic affects people's health and health-related quality of life (HRQoL), especially in those who have suspected COVID-19 symptoms (S-COVID-19-S). Several factors are associated with the prevalence and spread of this disease, including age, very high contact, underlying diseases, etc. the aim of this study is evaluation the literacy level of patients with novel corona virus (COVID19) in Asian area: A systematic review. This systematic review study is based on the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) . The design of the study question was based on the PICO process, in which "p" was patients with covid19, "I" referred to literacy level, "C" referred to literacy level gaps, and "O" referred to COVID-19 development. In order to access all published articles on the subject of education in people with novel coronavirus in the Asian region, searching process was done in the SCOPUS, Web of science (ISI), Google scholar, Embase, and PubMed databases using MESH and EMTREE by three independent researchers. The keywords studied include: education, education status, literacy, education level. Out of 191 articles obtained in the initial review, 23 studies was appropriate to be included in this review. The detail of studies was presented including author name, year, country, title and conclusions. Approximately all studies declare the importance of literacy in the field of COVID-19 to prevent, treat and eliminate the pandemic novel coronavirus disease.Paying attention to COVID-19 health literacy is critical for controlling, preventing, and treating. Even any strategy adopted by government agencies such as social distance, lack of public gatherings, closure of governmental offices, etc., is not possible without the cooperation of the people, which originate from the people's awareness. Applying any educational method during the novel coronavirus crisis, including the mass media, cyberspace, short message service and any distance learning, will help a lot in solving this crisis. The consequences of COVID-19 have been reported to be much lower in patients with higher levels of awareness. Undoubtedly, knowing the infectious disease plays an amazing role in preventing the ways of developing infectious diseases.

Keywords: Literacy, COVID19, Patients, Systematic Review

covid19-02100193

Prevention of Infection in Health Care Workers to Coronavirus 2019: Provide a Policy Brief

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Introduction: In the critical situation of emerging diseases like Covid-19, all social organs, even close relatives and the patient's family, distance themselves from the patient, and it is the duty of the medical staff to take care of the patient despite the dangers that exist for them. For example, 50% of those who died in the SARS epidemic were health care workers who became ill in hospital for caring for infected patients. According to an International Council of Nurses (ICN) report in September 2020, it was estimated that about 7% of people with Covid-19 were health care workers. With an estimated population of approximately 105 million worldwide by February 2021, it is estimated that more than 7 million health care workers will be infected with the virus (4). Meanwhile, in Iran until March 28, 2020, the rate of personnel infection is about 3% and the mortality rate is 8.41%. Therefore, this policy brief was written with the aim of prevention of infection in health care workers to Covid-19.

Methods: This is a qualitative and review study that was conducted in Imam Reza Educational and Medical Center in Tabriz. In this study, the policy options are selected through brainstorming sessions, focus group, and search for available resources and according to the center's facilities, demographic benefits, cost-effectiveness, feasibility, advantages and disadvantages, justice and ethics .

Results: The findings of this study showed that out of 8 policy options, 4 options were selected using fishbone diagrams. These 4 policy options are: 1. Implementation modified infection prevention system based on coronavirus characteristics, 2. Provide psychological support, 3. Implement logical and scientific scheduling of nursing shifts, 4. Vaccination of medical personnel against Covid-19 .

Discussion: According to Opinion of experts, and the evidence obtained from review of the literature, the mentioned policy options were selected. The experience of other countries, such as Taiwan, in using new methods of infection prevention has reduced the incidence of personnel to zero.

In addition to, studies show that during pandemics, health care workers are among the most vulnerable groups due to the high risk of infection, increased work stress and fear of transmitting the disease to their families. Overall, most studies have highlighted the need for psychological interventions with more emphasis on psychosocial support for nurses at the forefront of the Covid-19 struggle. Moreover, it seems kind of allocation nursing workforce can directly affect the safety and quality of patient care. Therefore, scheduling of nurses' shifts based on science and in a logical and flexible manner can be necessary to optimize and effectively use the nursing staff, as well as reduce the workload and improve the quality of nursing care.

Also general vaccination is one of the most effective methods to control the disease and reduce mortality during an epidemic of infectious diseases. Of course, it should be noted that recent studies show that more than one-third of respondents reported uncertainty or reluctance to receive the Covid-19.

Keywords: Prevention of Infection, Health Care Workers, Covid-19, Policy Brief

covid19-02100257

Vaccine Hesitancy: An Important Challenge for Health Care Systems

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Introduction: General vaccination is one of the most effective methods to control the disease and reduce mortality during an epidemic of infectious diseases. The effectiveness of vaccine campaigns to control Coronavirus 2019 (COVID-19) does not depend solely on the effectiveness and safety of the vaccine. Vaccine acceptance among the general public and health care workers appears to play a key role in the successful control of the pandemic. Vaccine hesitancy, known as a behavior, has delayed the acceptance or refusal to use the vaccine. In this study, reviewing the research conducted in this field, the importance of Vaccine hesitancy behavior in controlling COVID-19 pandemic has been investigated .

Methods: This study is a Rapid Review study using the keywords COVID-19, vaccination, Vaccine hesitancy and vaccine acceptance among Persian and English research articles and reviews on Scopus, Elsevier, PubMed, Google scholar and Sid websites .

Results: The findings of the present study showed that Vaccine hesitancy is a common phenomenon worldwide and various reasons for refusing to accept the vaccine have been mentioned. The most common reasons include: perceived dangers to interests, specific religious beliefs, and lack of knowledge and awareness. In most public studies, acceptance of the COVID-19 vaccine is reported to be less than 70%. Low rates of COVID-19 vaccine acceptance have been reported in the Middle East, Russia, Africa, and several European countries. According to the World Health Organization, the three main factors influencing Vaccine hesitancy are uncertainty about the vaccine and its efficacy, lack of understanding of the need for the vaccine, and lack of access to a suitable vaccine. The importance of this issue becomes even clearer when a study reports that the vaccine acceptance rate, even among health care workers at the forefront of the fight against the disease, is between 27.7% in the Democratic Republic of Congo and 78.1% in Israel. The low level of trust in the COVID-19 vaccine is probably due to several factors such as trust in the effectiveness of the vaccine, fear of side effects and trust in governments and those who produce and inject the vaccine .

Conclusion: There is a wide variety of COVID-19 vaccine acceptance rates in different countries and regions of the world. A significant number of studies have reported COVID-19 acceptance rates below 70%, which is a serious problem for controlling the current COVID-19 pandemic. Assessing the level of population immunity necessary to limit the pathogen

spread is dependent on the basic reproductive number for that infectious disease. The latest estimates on COVID-19, pointed out a range of 60–75% immune individuals that would be necessary to halt the forward transmission of the virus and community spread of the virus. Vaccine cost, effectiveness, and duration of protection appear to be important factors in achieving such a goal. Widespread hesitancy about the use of the COVID-19 vaccine necessitates the joint efforts of governments, health policymakers, and media resources, including social media companies. To build trust in the COVID-19 vaccine among the general public, it is recommended that timely and clear messages and reports be prepared and disseminated through reputable channels to support the safety and efficacy of the vaccines used.

Keywords: COVID-19, Vaccination, Vaccine Hesitancy, Vaccine Acceptance

covid19-02110176

Physical Activity Patterns and Moods States during COVID-19 Pandemic in Sport Athletes

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Background: The COVID-19 pandemic and its related restriction impacted on the people's possibilities to move deliberately in open space and to meet and gather with other people. Here, we investigated the impact of such restrictions on physical activity patterns before and during the lockdown, and on the current mood states of team sports athletes.

Methods: A total of 476 team sport athletes (football, futsal, volleyball, handball and basketball; mean age: 24.94 years; % 48.2) completed a series of self-rating questionnaires covering sociodemographic information, former and current physical activity patterns, and current mood states.

Results: Compared to the period before the restrictions, both duration and intensity of physical activity sessions decreased, while the frequency of PA sessions increased. Changes in PA patterns were associated with current mood states. Gender differences were observed as regards PA patterns and mood states. PA patterns and mood states did differ between the team sports. Also, mood states were not associated with other socioeconomic information .

Conclusions: The mean of positive moods was generally lower than negative moods. Football and volleyball players were most affected by the negative mood. However, females were less grouch, gloomy and weary than males and males were more alert and vigorous than females. So, the results of previous research on the fact that females are more affected by negative factors were not confirmed in the case of the present research athletics sample.

Keywords: Physical Activity; Mood States; Covid-19 Pandemic; Team Sports

covid19-02130162

Investigating the Relationship Between Corona Anxiety and Nursing Care Behaviors Working in Corona''s Referral Hospitals

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Objectives: The prevalence of Coronavirus and its health-related psychosocial consequences is one of the most important human social events of the 21st century. Nurses, due to close contact with patients are vulnerable to be infected with Covid-19. Therefore, they face severe psychological consequences. This study aimed to determine the relationship between Corona's anxiety and nursing care behaviors in working in Corona referral hospitals in Kerman in 2020.

Methods: The present study is cross-sectional descriptive-correlational research. Sampling was performed by the census method. A total of 166 nurses entered the study. In the present study, three demographic questionnaires, the Corona Disease Anxiety Scale (CDAS) and Caring Behaviors Inventory (CBI) were used. The analysis was done using Descriptive and Inferential statistics SPSS V. 18 software.

Results: The overall score of Corona anxiety among the nurses was 21.39±9.8, and the overall score of the nursing behavior of the studied nurses was 109.7±4.2 with a range of 94 to 118. Spearman's correlation coefficient showed that there was no significant relationship between corona anxiety and caring behaviors.

Conclusion: The present study showed that nurses working in corona wards suffer from moderate anxiety, and the level of caring behaviors provided by nurses was optimal. According to the current study findings, it is suggested that during the outbreak of emerging and epidemic diseases, to reduce nursing staff's anxiety, coping strategies and resilience skills, and problem-solving, managers should pay more attention.

Keywords: Caring, Anxiety, COVID-19

covid19-02130165

The Relationship between Alexithymia and Death Anxiety in Emergency Medical Technicians during the Corona Epidemic

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Introduction: Facing with traumatic accidents and events leading to death puts people at risk of death anxiety. Emergency medical technician (EMT) will be unable to express and manage their emotions over time due to their stressful job and suffer from alexithymia. At the time of Covid 19, there were more encounters with death scenes. Studies show that alexithymia in many people causes physical and mental disorders, including death anxiety. The present study was conducted to determine the relationship between alexithymia and death anxiety in EMT during the Covid 19 epidemic in southeastern Iran in 2020.

Methods: This descriptive-analytical cross-sectional study was conducted on 400 EMT in southeastern Iran who met the inclusion criteria and were selected using census sampling method. Data were collected using Templer Death Anxiety Scale and Toronto Alexithymia Scala. Data were analyzed using descriptive and analytical statistics by SPSS version 22.

Results: The results of the study showed that the mean score of death anxiety in EMT was 10.26 ± 3.69. It was revealed that 46.7% of the EMT had severe death anxiety. Also, the mean total score of alexithymia in EMT was 59.65 ± 8.28, indicating the possibility of alexithymia. The results of Spearman correlation test showed that there is a direct moderate relationship between death anxiety and alexithymia scores (r=0.351, P).

Keywords: Death anxiety, Alexithymia, Emergency Medical Technician

The Effect of Family-Centered Care on Physiological Characteristics of Brain Injury Patients during the Covid 19 Epidemic

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Introduction: One of the basic needs of patients and families during the period of hospitalization in intensive care units is the family being next to the patient, which is not a basic need in the Quid 19 epidemic. Despite the negative opinions of intensive care unit staff about the family being next to the patient, many studies have shown that family-centered care can be effective in meeting this need as well as the comfort and physiological parameters of patients.

Objective: The aim of this study was to determine the effect of family-centered care on physiological parameters of brain injury patients admitted to the intensive care unit of selected hospitals in Isfahan in 1399.

Methods: This study was a quasi-experimental study. Thirty brain injury patients referred to selected hospitals in Isfahan in 1399 were included in the study by available sampling and were assigned to two groups of 15 intervention and control by random assignment of permutation. In the intervention group, the first-degree families of the patients were present at the patient's bedside for 3 days and twice a day at 10:00 AM and 3:00 PM and performed the family-centered care program in accordance with health protocols. The control group received routine ward care. Physiological indices were recorded and measured 15 minutes before, during and after care. The results were analyzed using descriptive and inferential statistical methods and using Chi-square, independent t-test and repeated measures analysis of variance in SPSS software version 16.

Results: The results of the study showed that the mean of physiological parameters such as heart rate, systolic blood pressure, arterial blood oxygen saturation in the intervention group was significantly higher than the control group. (p 0.05) .

Conclusion: The results of this study showed that family-centered care on the patient's bedside is needed even in times of dangerous epidemics and causes significant changes in physiological criteria. Therefore, it should be possible for the closest family member to be present at the patient's bedside at the appropriate time with adequate family-centered care training.

Keywords: Physiological Indicators, Family-Centered Care, Covid 19

covid19-02170170

Exploring Health Care' Experiences on How to Inform the Patient to Get Infected with COVID-19: A Qualitative Study

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Background: COVID-19 disease is a new disease that is very important how Informing the patient about it. This study was conducted with the aim of investigating the experiences of the nurses' staff on how to inform the patient to get infected with COVID-19 .

Methods: Twelve health care providers (12 nurses and 6 anesthesiologists) in a educational and medical center in the city of Ilam in From February to June 2020 participated in the study with purposeful sampling. Semi-structured interviews were used to collect data, and the study began with the open question, "Describe your experience of identifying the disease in patients with COVID-19". To analyze the data, the conventional qualitative content analysis was performed.

Results: Participants in this study included 12 medical personnel, of which 7 (58.4%) were male and 5 (41.6%) were female. Based on the findings, 2 main themes and 7 sub-themes were extracted. The main themes extracted from this study include A) Passing the patient of the purgatory of COVID-19 diagnosis including four sub-themes: 1) Waiting for a diagnosis, 2) Announcing step by step the diagnosis, 3) giving information, 4) acceptance or resistance; B) Entering the important others to the purgatory of COVID-19 diagnosis including three sub-themes: 1) Entering the key family members, 2) Entering the physician, 3) Entering the relatives working as medical staff.

Conclusion: Diagnosing the disease of COVID-19 is like a purgatory for patient and staff. To help the patient get through this purgatory, important others are introduced by the staff. Eventually the patient either accepts the disease or resists accepting it .

Keywords: COVID-19, Content Analysis, Diagnosis, Qualitative Research

covid19-02180263

Evaluation of Incidence of the Prevalence of Covid-19 in Referral and Non-Referral Educational and Medical Centers in Alborz University of Medical Sciences in 1399 (The Lessons Learned)

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Introduction and Aim: Corona virus pandemic has been one of the world's most challenging crisis which not only endanger the lives of ordinary people, but also the lives of many caregivers. It also put a lot of pressure on the health care systems and the personnel. Global organizations estimate that more than 14% of the world's patients are health care providers. Iran Ministry of Health and Medical Education is one of the most important organizations providing care services for patients across the country. Some educational and medical centers especially care for patients with covid-19 and have become covid-19 referral centers. Consequently, the medical staff of these centers have the most encounters with patients with coronavirus .The aim of this study was to determine the relationship between the factors involved in the prevalence of Covid-19 among the staff in referral and non-referral educational and medical centers in Alborz University of Medical Sciences in 2019 and 2020.

Method: In this descriptive study, demographic information of 1562 medical staff diagnosed with Covid-19 disease in 2019 and 2020 according to the results of PCR test was analyzed using SPSS software version 11 .

Result: Findings indicate that about 23% of the nursing staff of referral and non-referral centers haveinfected with Covid-19. 60 % of the infected staff were nurses. 2.5 % of all these patients had comorbidities. The number of patients in referral hospitals compared to non-referral hospitals indicates that the incidence rate was not significantly related to the employment of staff in referral or non-referral centers (p >0.5). The high incidence of the infection was also noticeable among the service staff (8%). It is worth mentioning that about 9% of the service staff had underlying diseases which was the highest incidence of comorbidity .

Conclusion: According to the results of this study, it can be assumed that the role of personal protective equipment is much more important than the exposure of the staff, and given that health care workers in hospitals are exposed to much higher concentrations of the virus, this a logical conclusion. The correct use of personal protective equipment should be given special attention in care organizations. Also, considering the prevalence of the infection among

employees with underlying diseases, this study suggests that this issue should be considered in future plans to improve the health and well-being of the employees.

Keywords: Covid-19, Health Care Providers, Comorbidity

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Prevalence of Covid-19 Re-Infection in Healthcare Workers in Alborz University of Medical Sciences in the Year 1400

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Introduction: The specter of the new Corona virus has been unfolding all over the world since 2019. The extent of damage and loss of life will be known fully only after the Pandemic is over. According to the World Health Organization statistical reports, 151,545,218 people worldwide have been infected with Covid-19 so far, and it is estimated that about 14% of healthcare workers have contracted the virus. One of the concerns of the world's health managers is the infection and reinfection-defined by CDC as a second contraction after recovery- of their healthcare workers with Covid-19.

Objective: The aim of this study was to investigate the prevalence of Covid-19 re-infection in health care workers of Alborz University of Medical Sciences from 1398 to 1400.

Method: In this descriptive study, Covid-19 PCR test results of about 3838 probable and suspected healthcare workers were investigated and analyzed using SPSS software version 11.

Results: The results showed that, since the beginning of the Covid-19 pandemic in Iran, about 3838 healthcare workers in university and non-university educational centers of Alborz University of Medical Sciences, were infected with Covid-19, of which 2746 were confirmed with PCR or C Lung scans. The current study focusing on Covid-19 re-infection showed that about 5.57% had a second contraction.

Discussion and Conclusion: Staff re-infection with Covid-19 can be affected by various factors such as the presence of the new coronavirus in the body of the infected individual for a long time after recovery, the rate of antibody formation, and the level of immunity of the infected person after initial infection and recovery among many others. Staff re-infection raises widespread concerns among senior university administrators, the most important of which is endangering staff's physical and mental health. Concerns are also mounting over staff absenteeism for at least a 14 day period of convalescence which has affected Human resource management and ultimately the quality of client care. All these have led managers to anticipate and intensify their precautionary measures, such as accelerating and encouraging healthcare workers vaccinations and screening programs against Covid-19.

Keywords: Covid-19 Disease, Pandemic, Health Care Workers

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Gestational Diabetes Outcomes during COVID-19

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Background: Gestational diabetes (GD) is one of the problems of pregnancy that can cause problems for both mother and fetus. Mothers with GD may be at higher risk for Covid-19.

Objective: This study aimed to evaluate the consequences of GD during Covid-19.

Materials and Methods: This Narrative Review reviews the search engines and databases of PubMed, Medline, Cochran, Ovid, Library Online Wiley, Scopus, ScienceDirect, Tandfonline, Clinicaltrial, Springer, Google Scholar, Academic Microsoft, Base, Doaj, Civilica, SID, Magiran, Noormags, Irandoc, Elmnet in English and Persian with the keywords COVID-19, Diabetes and Gestational selected by MeSH and their Persian equivalents, from 2019 to 2021. It was done on January 20, 2021. We obtained 265 articles obtained. After removing duplicate articles, we reviewed the title and summary of 126 articles. Finally, we reviewed the full text of 8, which had inclusion criteria, and used their data for writing this review article.

Results: Measures used worldwide to combat the outbreak of Covid-19 have reduced visits to health centers. Also, diabetes control during Covid-19 has probably decreased due to decreased physical activity, changes in eating habits, and increased anxiety.Although the vertical transfer of Covid-19 to infants is unlikely, there seems to be considerable potential for affecting placental function and fetal growth .There have been few Case Series of mothers with GD and covid-19 who do not have an increased risk of a life-threatening infection. However, in a small number of Case Series where the mother had Covid-19, preterm labor and fetal distress have been reported. Therefore, vertical transmission from the mother with severe Covid-19 infection and diabetes is possible. Due to the lack of extensive studies on the effect of Covid-19 during pregnancy with diabetes, it is better to assume that this group is vulnerable.Only one case of death of a woman with gestational diabetes has been reported due to late hospitalization. She was a 35-year-old woman who presented with a dry cough, fever, and dizziness for three days at 31 weeks of gestation.

Conclusions: Little is known about pregnant women with GD during Covid-19. The best measure is prevention and early diagnosis, and management to reduce the severity of the disease. Therefore, these women need professional, psychological and emotional support.

Virtual visits using telemedicine technology may be a good way to reduce these problems. Careful studies are also needed to conclude the effects of Covid-19 on the mother and fetus.

Keywords: Gestational, Diabetes, COVID-19

Evaluation of Khodabandeh Healthcare Network Staff Involvement with COVID-19 from the Beginning of March 2020 to the End of March 2021

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Background and Aim: Health is always one of the main parts of human life and disease is one of the concerns that people face. Coronavirus (Covid-19) outbreak since late December 2019 in Wuhan, China and Spreading around the world is recognized as a major public health threat worldwide. Attending health-related Causes exposed to occupational hazards Such as various infections, stressors, allergens, etc. Health care workers are more at risk than ordinary people in the community due to high exposure to patients infected with the corona virus. The purpose of this article was to determine the prevalence of Covid-19 disease in Khodabandeh city.

Material and Methods: Data of this descriptive cross-sectional study Statistics were collected from the program for monitoring, prevention and care of coronavirus and was analyzed using statistical tests.

Results: During the 13 months of this study, 244 people (129 medical staff and 115 health workers) were diagnosed with the disease. Based on the findings, Occupational groups were at risk and vulnerable among hospital staff; administrative staff (76.2%), laboratory (70.58%) and pharmacy (55.55%) and among health personnel; Experts in laboratory sciences (52.94%), medical emergencies (31.03%) and health centers (29.72%). Also the least affected were operating room staff (4.16%) in the hospital and family physician program physicians (7.31%) in the health system. The incidence of men was higher than women among Employees. In terms of time distribution, the highest number of cases was in November and July 2021 among the employees of the health care network simultaneously with the third and second wave of the disease in the city and increasing the number of patients.

Conclusions: This research has been done with the focus on helping health planning and helping to monitor, evaluate, and manage health services. Showed that The definite infection of 23% of the employees of the health care network can indicate that can be effective and useful to reducing the burden of referring patients by increasing the number of health care centers and observing health protocols such as observing the social distance between service

providers and clients and the availability and correct and continuous use of personal protective equipment and environmental disinfection and sterilization in preventing the spread of disease and infection in health care workers.

Keywords: COVID-19 Diseases, Corona Virus, Healthcare Staff

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A Study of Covid-19 Stress Coping Styles among Iranian Health Care Workers

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Introduction: Due to the prevalence of COVID-19 and its mortality rate, health care workers are more exposed to psychological stress and anxiety due to being at the forefront of the disease. Applying appropriate coping skills in the face of stress will reduce the damage caused by stress. According to Endler and Parker, there are three coping styles against stress in individuals, including problem-oriented coping style or actively dealing with the issue to solve it, emotion-oriented coping style, or focusing on emotional responses to the problem, and avoidance coping style or escape from the problem. In the model of Endler and Parker coping styles, emotional and avoidance styles are considered as maladaptive styles and problem-oriented style as adaptive style to deal with the stresses of daily life. Considering the importance of using effective stress coping styles to deal with COVID-19 induced stress, the present study was designed to determine coping strategies with stress in Iranian health care workers.

Material and methods: This is a cross-sectional study conducted through an online survey from May 12 to July 12, 2020. The study population included all health care employees working in health care centers in Iran who were serving patients during the COVID-19 outbreak in Iran. Data were collected online through a demographic information questionnaire and the short version of the Endler and Parker coping inventory for stressful situations. The online questionnaires were created via Google Form and the URL link was sent to health care staff via email or social networking applications such as Telegram or WhatsApp. In total, questionnaires were sent to more than 1,500 health care workers throughout Iran. Data were analyzed using descriptive statistics and statistical tests including Chi-square, Mann-Whitney, and Kruskal-Wallis tests with SPSS software version 23.

Results: 552 health care workers completed and sent the questionnaires. The response rate was about 36.8%. The majority of participants were women (76.8%), in the age of 31-40 years (37.8%), married (72.6%), have a bachelor's degree (69.3%), work in governmental hospitals (76.3%), and have 1 to 5 years of work experience (31.4%). The results showed that the mean score of emotion-oriented (23.66 ± 5.69) and avoidance-oriented styles (22.60 ± 5.74) was higher than problem-oriented styles (15.04 ± 5.26) and the participants used more emotion-oriented and avoidance strategies to deal with stress caused by COVID-19. There was a significant inverse correlation between the score of problem-oriented styles with age ($r = -0.2$; p).

Keywords: Adaptation, Psychological; Coronavirus; COVID-19; Health Personnel

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Violence against Iranian Women and its Relation to the Aggressive Behaviors of Preschool Children in the Covid-19 Epidemic

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During the epidemics, unstable situations of domestic violence, will be intensified according to measures of social isolation and reduced support options.In the meantime, different groups in society, especially children and their mothers, are very vulnerable. The aim of this study was to investigate the relationship between violence against Iranian women and its relationship with aggressive behaviors of preschool children during the covid-19 epidemic. It is a descriptive correlational study. The sample consisted of 400 mothers of preschool children in Kerman. Data were collected using the Violence Toward Women Inventory and the Agression scale for preschoolers Scale. Data were analysied using SPSS version 25 and using descriptive and analytical stetistics.The results showed that with increasing violence against women, aggression increases in preschool children (r = 0.33, p)

Keywords: Violence, Preschool Children, Covid-19

covid19-02260180

Fear and Anxiety in Girls Aged 7 to 11 Years Old and Related Factors during the Coronavirus Pandemic

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Children are one of the most vulnerable groups in crises. The psychological consequences of COVID-19 in children must be considered. This study aimed to assess the fear and anxiety of COVID-19 in primary school girls. It is a descriptive correlational study to investigate schoolgirls' fear and anxiety of covid-19 in southeastern Iran. Data were collected using the fear of coronavirus questionnaire and the Corona Disease Anxiety Scale. The mean score of fear and anxiety of corona disease was 11.49 ± 6.59 and 17.67 ± 10.87, respectively. The bivariate analysis showed a significant association between fear and anxiety of corona disease, a single child ($p = .025$ and $p = .006$), and a mother's level of education ($p = .01$). In other words, girls who were single child had a significantly higher level of fear and anxiety than other girls and the girls whose mothers had diploma had a higher level of fear and anxiety than girls whose mothers had Ph.D. Since fear and anxiety can be affected by factors such as culture, education level, and birth rate, it is recommended that this study be performed in other communities as well.

Keywords: Fear, Anxiety, Girls, Coronavirus, Pandemic

Survey of Psychological Consequences of Consequences Covid-19 in Nurses Working in Intensive Care Units

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Introduction: Nurses are the first group at the forefront of dealing with the Covid-19 pandemic. Because nurses' physical and mental health is directly related to the quality of their performance in patient care, the aim of this study was to survey of Psychological consequences of consequences Covid-19 in nurses working in intensive care units.

This cross-sectional study was performed with the participation of 325 nurses working in COVID19 wards of Isfahan educational Hospitals in 2020. Data collection tools included a demographic questionnaire and DASS-21 standardized questionnaire.

Results: There were 325 nurses with a mean age of 27.4 ± 5.5 years. The Chi-square test showed that depression, anxiety and stress of nurses were moderate. The one-way analysis of variance test showed that depression with employment status (P=0.001), anxiety with age (P=0.008), Sex (P=0.003) and personal protective equipment (p=0.004) and stress with age (P=0.001), employment status (P=0.031) are significantly associated.

Conclusion: The rate of depression, anxiety and stress in nurses working in ICUs in Isfahan educational Hospitals is moderate. In these conditions, maintain mental health of nurses working in centers related to Covid-19,it is essential, Because their mental health may be damaged and ultimately the patient outcomes is compromised.

Keywords: Depression, Anxiety, Stress, Nurses, COVID-19

covid19-02320201

Medical Education and Social Media during the Coronavirus Disease-2019 Pandemic

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Introduction: As paradigms of clinical care delivery have been significantly impacted by the novel coronavirus disease-2019 pandemic, so has the structure, delivery, and future of medical education. Adherence to social distancing has led to the adoption and implementation of already available technologies in medical education, including video conferencing soft wares and social media platforms. Efficient and effective use of these technologies requires an understanding not only of these platforms and their features but also of their inherent limitations.

Materials and Methods: Literature was searched through PubMed database, Science Direct, Scopus and Google scholar from 2019 to April 2021 .

Results: Training medical students to deliver high-quality, secure, and personalized health care through telemedicine will prepare the next generation of physicians to conscientiously use these technologies and meet a growing need for telehealth services. Telemedicine-specific educational goals can be incorporated into curricula and integrated with existing clinical experiences to provide students with core telemedicine and clinical skills to prepare them for current and future pandemics. Medical educators could explore 5 major telemedicine domains: (1) access to care, (2) cost, (3) cost-effectiveness, (4) patient experience, and (5) clinician experience. Schools could use the following learning vehicles to help medical students explore these domains: (1) asynchronous lectures covering telehealth history; (2) discussions on applications, ethics, safety, etiquette, and patient considerations; (3) faculty-supervised standardized patient telehealth encounters; and (4) hands-on diagnostic or therapeutic procedures using telehealth equipment. Incorporating telemedicine into the medical school curriculum exposes students to the application of telemedicine across specialties as well as its limitations.

Conclusions: Clinicians and institutions must evolve to embrace the use of social media platforms for medical education. Health care professionals can approach social media engagement in the same ethical manner that they would with patients in person; however, health care institutions ultimately must enable their health care professionals to achieve this by enacting realistic social media policies. Institutions should appoint clinicians with strong social media experience to leadership roles to spearhead these generational and cultural changes.

Keywords: Covid-19, Social Media, Medical Education

covid19-02330183

The Challenge of Preparedness and Response to Earthquake during the COVID-19 Epidemic: A Systematic Review

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Background: Disasters can throw societies into a crisis. On one hand, emergencies related to natural disasters, such as earthquakes, cause powerful but short term impacts that need immediate intervention. The COVID-19 pandemic quickly demonstrated the serious systemic gaps in multi-hazard disaster preparedness and has forced countries to recognize that the demarcations between natural, biological, and other hazards are arbitrary at best. The aim of this systematic review is to analyze the relevant research on earthquake preparedness and response during the COVID-19 epidemic.

Methods: This systematic review includes papers from a broad range of disciplines focusing on or related to "coronavirus" and "earthquake" and their equivalents published from 1.January.2020. The primary databases utilized for search of literature were Scopus, PubMed/Medline, Web of Science (WOS), Proquest, science direct. Keywords included the "earthquake","Coronavirus", Iran and their equivalents were obtained from Mesh, Emtree or extracted from related articles. Other resources, gray literature, reference lists of relevant primary studies as well as key journals were searched for additional studies. From the 351 records identified through database searching in the early stage, 11 articles were selected for this review followed by analysis of the characteristics and content analysis of the included studies to answer the study questions.

Results: The findings of this systematic review that emerged from content analysis are summarized in 3 main themes: Increase the risk of the spread of the COVID-19, Impose extra pressure on the healthcare system, limiting the capacity to respond. Proposed strategies to increase efficiency in the face of simultaneous disasters are: Awareness and action for COVD-19, Strengthen capacity, Construct additional evacuation sites, Prepare livelihood programs that integrate climate and disaster resilience, Multi-Hazard Impact-Based Forecast and Early Warning Systems, use the pattern Community Based Disaster Risk Management, Operation of the Sendai Framework for Disaster Risk Reduction (SFDRR) .

Conclusions: COVID-19 shows that resilience needs to be fostered in all parts of societies.

The need for systemic resilience in the infrastructure sector to various natural disasters has been made clear by the COVID-19 pandemic. This brief offers three pivotal solutions towards risk-resilient infrastructure: mainstreaming natural hazard and climate risk data and analytics into mainstream financing; expanding focus from single hazard to multiple hazards for disaster risk financing; and using regional cooperation to share expertise in building infrastructure resilience through better Early Warning Systems (EWS) and overall Disaster Risk Reduction (DRR).

Keywords: COVID-19, Earthquake, Preparedness

covid19-02330184

Methanol Poisoning during COVID-19 Pandemic in Iran: A Rapid Review

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Background: Methanol poisoning has been a significant public health challenge for several decades in Iran. From February through May, 2020, the 2019 COVID-19 epidemic rapidly expanded in Iran and has been associated with 90,481 confirmed cases and 6200 confirmed deaths. The aim of this rapid review is to investigate the causes of increased alcohol morbidity and mortality during COVID-19 pandemic in Iran.

Methods: In this rapid review, data were collected using clear and explicit processes followed by systematic synthesis of the characteristics and findings of the included studies according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The key words of "Alcohol", "Coronavirus", "Iran" and their equivalents were obtained from Mesh, Emtree or extracted from the related articles. Other resources, gray literature, reference lists of relevant primary studies as well as key journals were searched for additional studies. The articles published between January 1, 2020 and February 10, 2021 were included. The study syntax was formed from three components. The first component included: Alcohol, ethanol, "alcohol poisoning, "alcohol toxicity", methanol, "alcohol use", "alcohol abuse", "methanol poisoning", methanol toxicity". The second component included: Coronavirus, COVID-19, "COVID-19 outbreak" and the third component included Iran. We did electronic search on Google Scholar, PubMed, ISI Web of Science, Science Direct, and Scopus.

Results: From the 185 studies identified through database searching in the early stage, 15 articles were selected for this review followed by analysis of the characteristics and content of these included studies to answer the study questions. The main themes extracted were: lack of knowledge, false believes, prohibition of public alcoholic beverages, ethanol alcohol shortage, and finally, structural, legal, and religious dimensions.

Conclusions: The increasing number of methanol-poisoning cases, having maximized pressure to the health system while trying to contain the COVID-19 epidemic, is an example of the reasons why Iran requires to develop more prevention and mitigation services for alcohol use disorders. The two main strategies suggested to prevent future alcohol poisoning are: enhancing public awareness and developing an emergency management plan.

Keywords: COVID-19, Methanol Poisoning, Iran

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The Relationship between Coping Strategies, Happiness and Resilience among Elderlies during the Coronavirus Pandemic

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Introduction: Aging is normally accompanied by a decline in physical and mental abilities. Therefore, elderly individuals are prone to numerous challenges. Encounter with unexpected challenges, such as the coronavirus pandemic, can increase these individuals' vulnerability. The type of coping strategies used for management of such critical conditions may be associated with psychological variables like resilience and happiness. Hence, the present study aimed to investigate the relationship between coping strategies and elderly people's resilience and happiness during the coronavirus pandemic.

Methods: In this descriptive, correlational study, based on the information obtained from a pilot study, 204 participants were selected from the elderly people living in Ahvaz using convenience sampling. The study data were collected using Connor and Davidson Resilience Scale, Oxford Happiness Scale, and Billings and Moos Coping Strategies Inventory. The data were entered into the SPSS 22 software and were analyzed using statistical tests.

Results: The results revealed a significant positive relationship between problem-focused coping strategies and happiness.

covid19-02370228

Anxiety and Self-Efficacy of Iranian Children and its Determinant Factors during the Prevalence of COVID-19 Disease

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Background: The pandemic of coronavirus disease-19 (COVID-19) has caused many psychological and social challenges for children .

Objective: The present study was performed to determine the Anxiety and Self-Efficacy of Iranian Children during the prevalence of COVID-19 disease in Iran.

Methods: This is a cross-sectional study. Thirty-three hundred and thirty-five children of Sistan and Baluchestan province, southeast Iran, participated in the study between July to Novamber 2020. Sampling was performed using an online questionnaire via social media. The data were collected using demographic and COVID related-items, Multidimensional Anxiety Children for Scale (MASC) and Self-Efficacy Questionnaire for Children (SEQ-C).

Results: The mean age of children was 14.21 ± 2.04 years. The bivariate analysis showed that self-efficacy had a significant association with the mothers' job, being at risk of coronavirus infection, effectiveness of precautionary measures, take precautions to prevent coronavirus infection, take precautions to prevent coronavirus infection, hand wash and disinfect and advise others to take preventative measures. Self-efficacy, gender, the most important concern about the coronavirus, advise others to take preventative measures, level of education and advise others to take preventative measures predict 17% of the variance of anxiety ($R2 = 17\%$) and the best predictor is Self-efficacy ($p < 0.001$).

Conclusion: Anxiety is associated with self-efficacy in Iranian children during the outbreak of COVID-19. Paying attention to the factors affecting the self-efficacy of Iranian children can reduce children's anxiety.

Keywords: Anxiety, Self-Efficacy, Children

covid19-02370229

The Use of Complementary and Alternative Medicines in General Population during the COVID-19 Outbreak: A Survey in Iran

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Background: the spread and epidemic of some diseases such as coronavirus disease-19 (COVID-19) has caused many physical, psychological and social challenges despite the existence of some treatment strategies. Many people are looking for complementary and alternative medicines (CAMs) to prevent such diseases.

Objective: The present study was performed to determine the use of some types of CAMs during the COVID-19 epidemic in Iran.

Methods: the present study had a cross-sectional descriptive correlational design. All Iranian participants above 17 years old were eligible to participate in the study. Seven hundred and eighty-two participants completed a demographic information questionnaire, a questionnaire on the use of CAMs and a questionnaire about satisfaction with using CAMs. Web-based sampling was conducted from 20 April 2020 to 20 August 2020 .

Results: 84% of the samples used at least one type of CAMs during the COVID-19 outbreak. The most commonly used types of CAMs were dietary supplements (61.3%), prayer (57.9%), and herbal medicines (48.8). The majority of the participants (50 – 66.2%) have used CAMs to prevent the COVID-19 transmission or to reduce anxiety caused by the COVID-19. The CAM use was associated with sex, child, province, COVID-19 screening, and friends as a source of information (P < 0.05). All 32 participants who were infected with COVI-19 have used at least one type of CAMs for treatment or alleviation of the disease symptoms .

Conclusion: Using some type of CAMs during COVID-19 outbreak particularly nutritional supplements, medicinal herbs, and prayer are relatively common to prevent COVID-19 disease and reduce anxiety.

Keywords: Alternative, Complementary, COVID-19

covid19-02370230

The Relationship between Coronavirus Anxiety, Mindfulness and Spiritual Health in Patients with Cancer: A Survey in Southeast of Iran

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Objective: The sudden outbreak of COVID-19 has caused major health problems, including anxiety in cancer patients worldwide. Spiritual health and mindfulness are considered as factors affecting anxiety. This study addressed the relationship between COVID-19 anxiety, spiritual health and mindfulness in patients with cancer.

Methods: one hundred and eighty-four cancer patients participated in this cross-sectional study. Patients completed the Demographic and Clinical Characteristics Form, Corona Disease Anxiety Scale (CDAS), The Freiburg Mindfulness inventory- Short Form (FMI-SF) and Spiritual Health Scale. Results: According to the psychological symptom subscale (CDAS), 61.4% of the participants had moderate to severe anxiety. According to the physical symptom subscale, 38% of the participants had moderate to severe anxiety. 26.1% of the patients believed that the COVID-19 outbreak and lockdown influenced their course of treatment. No significant association was found between corona disease anxiety and mindfulness/ spiritual health (P > 0.05) .

Conclusion: The results of this study showed high levels of mental and physical anxiety and worries about COVID-19 disease in cancer patients, which led to challenges in their lives. It is necessary to review and implement effective interventions in future studies to prevent anxiety and its consequences in cancer patients.

Keywords: Cancer, Mindfulness, Spiritual Health

covid19-02370231

The Relationship between Spiritual Health and Happiness in Medical Students during the Covid-19 Outbreak

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Background: It is necessary to study the various dimensions of health and its affecting factors during the coronavirus disease-19 (COVID-19) pandemic crisis to identify the necessary interventions. The aim of this study is to determine the relationship between spiritual health and happiness in medical students during the covid-19 outbreak.

Methods: In this descriptive study, 409 medical students were examined for spiritual health and happiness. Student information was collected through the Web-based sampling by using standard tools which validity and reliability were verified from 20 April to 20 June 2020. Medical students completed the demographic and Oxford Happiness Questionnaire and Spiritual Health Scale.

Results: The mean score of students' spiritual health was $51/12 \pm 30/74$ and the mean score of happiness was $44/17 \pm 16/34$. The results showed that although the score of spiritual health and happiness,The difference was not significant among both male and femele students ($p > 0.05$), but there was relationship with factors such as marriage, interest in education and economic level. There was a positive and significant relationship between spiritual health score and happiness ($r = 0.72$).

Conclusion: This study showed that students' happiness scores were not optimal during the Covid 19 epidemic. spiritual health promotion can be used to improve happiness in this group due to the high relationship between spiritual health and happiness scores along with other interventions.

Keywords: Covid-19, Happiness, Students

covid19-02370235

The Relationship between Coronavirus Anxiety, Stress, Spiritual Health and Mindfulness among Patients under Hemodialysis: A Survey in Southeast Iran

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Objectives: The current study aimed to investigate the relationship between mindfulness, spiritual health, and coronavirus stress/anxiety in patients undergoing hemodialysis.

Methods: One hundred and forty-four patients under hemodialysis participated in this cross-sectional study. The data were collected from 15 August to 15 September 2020. Patients completed the Demographic and Clinical Characteristics Form, Corona Disease Anxiety Scale (CDAS), stress subscale of DASS-21, The Freiburg Mindfulness inventory- Short Form (FMI-SF) and Spiritual Health Scale.

Results: The results showed that 28.5% of the participants had moderate to severe anxiety. According to the psychological symptom subscale CDAS, 54.2% of the participants had moderate to severe anxiety. According to the physical symptom subscale, 41.7% of the participants had moderate to severe anxiety. Sixteen percent of the patients believed that the COVID-19 outbreak and lockdown influenced their course of treatment. A significant association was found between corona disease anxiety and mindfulness ($r = -0.20$, $P = 0.02$). No significant association was found between stress and mindfulness/ spiritual health ($P > 0.05$).

Conclusions: The results of this study showed that coronavirus anxiety and stress are common in hemodialysis patients. Mindfulness may be effective in reducing coronavirus anxiety in hemodialysis patients. Therefore, interventions are suggested to increase the level of mindfulness and empower hemodialysis patients to cope with anxiety caused by crises such as coronavirus outbreak.

Keywords: COVID-19, Health, Hemodialysis

Anxiety about COVID-19 in Nurses Working in Hospitals of Guilan University of Medical Sciences

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Introduction: The COVID-19 epidemic is currently the biggest health concern in all countries, including Iran, one of the top countries affected by the virus. The stress and anxiety caused by the COVID-19 pandemic is more pronounced in the medical staff, especially nurses, because they are in the first line of exposure to the virus at the outbreak of the disease, and constant exposure to a large number of infected patients and to the pathogen makes them a high-risk group in terms of disease. Factors such as labor shortages, long working hours, psychological distress, burnout and fear of transmitting the virus to family members put nurses in a stressful situation and cause them to suffer a lot of anxiety, which has significant negative effects on their physical and mental health and function. Therefore, the present study was performed to determine anxiety about COVID-19 in nurses.

Methods: This cross-sectional analytical study was performed on nurses working during the outbreak of COVID-19 in selected hospitals of Guilan University of Medical Sciences in 2020. 270 nurses who met the inclusion criteria were selected and partially enrolled in the study by simple random sampling method from the selected hospitals that were the referral center of COVID-19. The instruments used was the demographic characteristics questionnaire and the COVID-19 Anxiety Scale in the Iranian sample (CDAS), including 18 items and 2 components which measure physical and psychological symptoms of anxiety. The Questionnaire is scored in the 4 Likert scale; so the total score of anxiety of the partisipants was in range of zero to 54 and high scores indicated a higher level of anxiety. This tool has been prepared in Iran and has had a good reputation and validity in the preliminary validation by Alipour et al. The reliability of the questionnaire was determined to be 0.90 using Cronbach's alpha. The questionnaire was completed by the samples by referring to the selected hospitals in person. The collected data were analyzed using SPSS 21 and descriptive and analytical statistics.

Results: Of all participants, 93.7% were women and 84.8% had a history of caring for patient infected COVID-19. The mean age of participants was 34.17± 8.52 with a minimum of 23 and a maximum of 54 years. The mean score for general anxiety about COVID-19 was 14.08 ± 0 9.54. More than half of the nurses (67.8%) had no anxiety or mild anxiety and less than

10% (6.3%) had severe anxiety about COVID-19. Regarding the symptoms of anxiety, more than half of the nurses had no physical symptoms or had mild physical symptoms of anxiety. However, more than two thirds of samples (76.7%) had moderate psychological symptoms of anxiety and less than 10% of them experienced severe psychological symptoms .

Conclusions: Mental anxiety has been more prevalent in nurses than physical anxiety. Therefore, it is important that effective training strategies to improve mental health be provided to medical staff, especially nurses.

Keywords: Anxiety, Covid-19, Nurses

covid19-02400286

The Role of Telemedicine during CoVID-19 Epidemic

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Background: Telemedicine platforms are ideal for managing several challenges facing healthcare systems in response to global infectious disease outbreaks.

Objective: The purpose of this article is to investigate the effectiveness of Telemedicine and their usage during Covid19 Epidemic .

Method: In this review, articles published from 2020 to 2021 were searched using the keywords: Telemedicine, Health and Covid19 Epidemic in Electronic databases such as SID, IranMedex, Google Scholar, PubMed, and Scopus.

Results: Telemedicine is one of the most effective ways to control and fight against spreadable COVID-19. Due to the high-risk chance of transmission of this virus from person-to-person contact, Telemedicine can be useful by reducing direct contact. Implantation of Telemedicine systems with the goal of supply needs for low-acuity patients can have sufficient usage for patients who have exposure concerns. For example, it can reduce the congestion in emergency departments, urgent care clinic, and primary care clinic by reducing of need for patients' attendance. At the same time, it can provide reassurance and guidance that patients want. Another usage of Telemedicine is to educate people at the community level, in particular carriers and infected patients with COVID-19. Furthermore, it can be used after the patient's discharge.

Conclusion: Telemedicine is ideal for managing several challenges that global health care organizations face, and be an answer to global infectious diseases. We can use Telemedicine to avoid overcrowding, prevent people's exposure, and facilitate high-quality care.

Keywords: Telemedicine, Health, CoVID-19

covid19-02410194

Experiences of Medical Sciences Universities during the Covid-19 Epidemic: A Qualitative Study of Actions and Challenges

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Introduction: Universities are a vital part of any society and are considered agents of social change. These institutions face an ever-changing environment and for well-functioning should prepare themselves in the face of the challenges of the local community and society to which it belongs. Since the end of 2019, the Covid-19 epidemic has spread around the world, and almost all countries in the world have reported cases of it. Usually in such epidemics, countries face many challenges to effectively respond to the crisis. In this regard, the role of medical sciences universities affiliated with higher education in Iran is very important because they are responsible for three key aspects including educational, research, and service provision activities. This study aimed to explain the experiences of Iranian medical sciences universities during the COVID-19 epidemic.

Methods: This qualitative study employed semi-structured interviews and reviewing publicly available documents. Twenty-two interviews were conducted with key informants from medical universities involved with the corona crisis at the national and provincial levels, who were chosen using a purposeful and snowball strategy sampling method. Furthermore, eighteen national and provincial documents of academic reports around higher education activities were reviewed. Data were analyzed using data-driven thematic analysis to classify the codes into themes and sub-themes. All the data processes were carried out using MAX-QDA 2018 software .

Results: In this study, the actions taken by medical universities and related challenges were classified into three themes: educational, research, and service delivery activities. Five sub-themes emerged from educational activities were including Information management, production of scientific content, dissemination of information mechanisms, awareness-raising, and student-oriented supports. Challenges related to the educational activities

categorized into two sub-themes: weakness of educational structure, and weakness in information management. In the case of research activities, three sub-themes have emerged: conducting research studies related to covid-19, support of researchers, and production and procurement of medical equipment. Two sub-themes were also extracted for the challenges of the research activities, which included weakness in research, and barriers to conduct the research. The service delivery activities encompassed four sub-themes on actions and ten sub-themes on challenges. The sub-themes that emerged from actions taken were: preventive measures, therapeutic measures, psychological support for different groups, and economic support of different groups. Finally, the challenges related to service delivery were including structural weakness, nature of the crisis, legal vacuum, political challenges, defect in health protocols, poor psychological support, resource constraints, cultural problems, managerial shortcomings, and poor communication management and coordination.

Conclusion: The results of the present study showed that the most identified challenges were related to service delivery. For universities to be more effective, there is a need for more government support for the university, strengthening inter-organizational relations, and psychological support for the medical staff. In the research activities, it is necessary to assess the need for applied research in the field of covid-19, monitor effective research, and support researchers in emergencies. Also, due to limited experience of academics with remote education and learning, it is necessary to strengthen the required skills and the infrastructure of this system. Furthermore, in the case of effective communication management, it is highly necessary to inform and disseminate actively valid information to the public.

Keywords: Experience, Medical Sciences University, Covid-19

covid19-02420190

A Review of the Interactions between Social Media, Dentistry, and Covid-19

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Introduction: Social media has increasingly advanced and provided people around the world with effective communication and interaction during recent decades. Due to the social isolation while the COVID-19 pandemic crisis, social media has become more important. Thus in this review article, the overall interactions between social media and dentistry while covid_19 crisis will be assessed.

Methods: PubMed, Scopus, and Google Scholar were searched by two keywords: "social media" and dentistry. Instead of keyword corona, we decided to limit the time through JAN 2020. After language limitation to English, 222 articles were found. 25 duplicates were deleted, finally, 9 articles were selected to enter the study.

Result: The coronavirus has challenged health professions and systems and evoked different types of responses around the world. Social media along with its benefits can play a detrimental role during a global health emergency. The impact of Social Media on dental practices while lockdowns are observed on three general topics: patients' anxiety, the Needs and responsibilities of dental health care workers (DHCWs), and dental education. Twitter and YouTube were the mostly-used social media platforms around the world.

The increased risk of contracting the disease in areas, including dental clinics, caused considerable concern for patients. Some cases avoided seeking dental remedies despite needing critical intervention. Deep anxiety was also evident over delaying of therapy for more than half of the subjects. Other concerns were the consequences of incomplete therapies and the overall treatment period in surgery and orthodontic Specialties. Dental professionals are at the highest risk of contracting SARS-CoV-2. To decrease the transfer line and for better personal protection, different methods were discussed and shared through different social media. Misinformation and fake news can increasingly spread through social media. Therefore, dental specialists, organizations, journals, public clinics, and private offices can play a key role in preventing the spread of such news over social media platforms. Information about oral care was frequently tweeted to satisfy the public need for both daily oral care and dental emergencies. For DHCWs, tweets play an important role in health policymaking as dental services have been halted due to the covid_19 crisis. Studies

assessing the impact of social media on the anxiety level of DHCWs show that the more DHCWs use social networks, the more anxious they will be. Different social media has been used to teach theoretical content. During this time, access to proper and free education through social media has been increased. However, the main concern is teaching preclinical and clinical training contents to reduce the large gap between the quality of received education and expected therapeutic responsibilities. On the other hand, people's oral health may be indirectly influenced by unequal access to well-qualified internet connections and the economic difficulties of students.

Conclusion: social media and dentistry during the coronavirus pandemic, had a significant reciprocal effect in different aspects.

Keywords: Social Media, Dentistry

A Young Man Suspicious for Cushing's Syndrome With Coronavirus Disease-19 (COVID-19): A Case Report

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The 2019 global Coronavirus syndrome pandemic (COVID-19) has entered to more than two hundred countries around the world, involving 1,800,000 deaths (until January, 1st 2021). We are going to report on COVID-19 infection in the context of a Cushing's syndrome (CS) from Iran. A 36-year-old man with proximal myopathy, plethora, and striae with central obesity was evaluated for Cushing's syndrome. During the high dose dexamethasone test, the patient developed symptoms of cough, low-grade fever, and weakness then was admitted to the ICU with a diagnosis of COVID-19. Despite treatment according to national protocols for COVID-19, the patient unfortunately died. In this report, we intend to discuss the various aspects of Cushing's syndrome and severe COVID-19 infection.

Keywords: Coronavirus Disease (COVID-19), Cushing's Syndrome, Immunosuppression

covid19-02440218

A Cross-Sectional Survey on Patients' Satisfaction using Store-and-Forward Voice and Text Messaging Teleconsultation Service During the COVID-19 Pandemic

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Aim: This study aimed to evaluate the patients' satisfaction with using store-and-forward voice and text messaging teleconsultation service to provide primary health care to patients during the COVID-19 pandemic.

Method: A cross-sectional survey was conducted between October 1 and December 1, 2020, in Iran. The study population consisted of patients who used the service. Three hundred-ninety-six patients were enrolled in the study by convenience sampling. Data were collected by a researcher-made questionnaire. The face, comprehensibility, and content validity of the questionnaire were tested and met. The reliability of this questionnaire was confirmed (r = 0.9). Descriptive statistics and multinomial logistic regression were conducted. Data were analyzed using STATA 14.0 software.

Results: In total, 396 patients responded to the online questionnaire. The mean age of patients was 37 ± 10.31 years. More than half of them had an academic degree (65.40%). Teleconsultation was considered satisfactory by 172 patients (43.43%), while more than half of the patients (56.57%) were unsatisfied with teleconsultation. In terms of "quality of care provided" and "patient information privacy" components, around 41% of patients were satisfied. However, the number of patients who feel satisfied with teleconsultation's similarity to a face-to-face encounter was lower (37.88%). The results showed no significant relationship between age, gender, education, and overall satisfaction (p>0.05). The association between overall satisfaction and health status was (AOR = 1.51, 95% CI = 1.16–1.96) .

Conclusion: More than half of patients from our study did not have a good experience with teleconsultation. This is also partially due to the use of existing communication platform, instead of custom-made solution. It is necessary to improve the services' quality and meet Patients' needs to optimize patients' experience, particularly during a health crisis, resulting in better health outcomes and end-user satisfaction.

Keywords: Teleconsultation, Satisfaction, Telemedicine, Telehealth, COVID-19 Pandemic

Media Coverage of the Covid-19 Outbreak in Iran:
A Content Analysis of Online News Media

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Background: The outbreak of Covid-19 disease in Iran has raised several concerns about various aspects of the disease, which have attracted news media attention, especially online media. News coverage of these media during disease spread can affect public opinion on crisis prevention,control and public attitudes towards social issues and policy decisions. This study aimed to analyze the content of online news media about Covid-19 in Iran.

Methods: We used a conventional and summative content analysis approach on online news media published about Covid-19 during the first two weeks of Iran's outbreak. Searching in general and specialized online news media, we collected 7089 news. Two trained coders coded all online media content. Data analysis was performed inductively using MAXQDA 10

Results: Of 7089 retrieved news, 2071 were unrelated to Covid-19, and 5018 were included in the study. The news was categorized into eight themes and 17 sub-themes. These themes included preventive measures, healthcare services, negative consequences, technological applications, international aspects, people's and government cooperation, political issues, and religious aspects. The dominant theme and sub-theme were preventive measures and social distancing, respectively

Conclusions: Media analysis can play an essential role in identifying events and challenges surrounding crisis such as emerging disease epidemics. The study results showed that preventive measures and related challenges are the most critical reflective axis in the Covid-19 crisis.

Keywords: Online News, Media Analysis, Covid-19, Iran, Media Coverage

covid19-02440238

Satisfaction with Policy Responses and their Implementation and Monitoring Combating the COVID-19 Outbreak: An Online Opinion Survey in an Area of Iran

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Background: The outbreak of coronavirus, COVID-19, as a global public health emergency, began in Wuhan, China. Following the outbreak of COVID-19 in Iran, the National Committee to Combat COVID-19 to make adopted decisions and policy responses. This study aims to survey people's viewpoints about their satisfaction with the nature of main policy responses or measures the implementation and monitoring them.

Methods: A cross-sectional online opinion survey was carried out in Kerman in 2020. The sample included adults aged 18 years who had access to the internet and smart electronic devices. An online platform was used to develop the questionnaire and collect the data. The face, comprehensibility, and content validity of the questionnaire were tested and met. Descriptive statistics and multinomial logistic regression were conducted. Data were analyzed using STATA 14.0 software.

Results: In total, 3192 participants responded to the questionnaire with a response rate equal to 67% (3192 out of 4775 participants who started to answer the questions, filled out, and finally click on the final submit button). More than half of the participants were female (n=1772, 55.51%), and the mean age of people was 37 ± 11.72. The majority of people had an academic education level (74.97%), while about 6% were under a diploma. More than half of the participants (n=1749, 54.79%) were satisfied with adopted decisions, while more than half of the people (n=1807, 56.61%) were unsatisfied with implementing and monitoring of decisions.

Conclusion: The results of the study showed that people were highly satisfied with the decisions made by the National Committee to combat COVID-19. However, it seems that the government has performed poorly in implementing and monitoring decisions, leading to a decrease in people's satisfaction.

Keywords: Satisfaction, Policy Response, Implementation, Monitoring, COVID-19, Online Survey

covid19-02450198

The Effect of the Combination of Black Seed and Honey in the Prevention and Treatment of Covid 19 Disease in Pandemic Conditions

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Background and Aim: With the emergence of the Covid-19 pandemic in the world, it has created many problems for people's lives. In this study, we review articles related to the treatment and symptoms recovery of respiratory patients, especially those with Covid-19 through medicinal plants such as honey and nigella seed.

Methods: In this review study, articles published between 2021-2010 were reviewed and Google, Google Scholar, Scopus, Medlib, Pubmed, Science Direct databases were used to collect articles. To search for the keywords honey, nigella seed, Covid-19, Respiratory disease Honey, nigella seed, Covid-19, Respiratory disease in English and Persian sources were used. After evaluating the inclusion criteria and quality of articles, 24 eligible studies were included in the present study.

Results: Based on studies conducted in various articles, the condition of people with respiratory diseases, especially Covid-19, which has caused many problems for the people of the world, with the use of medicinal plants such as honey and nigella seed, has shown that it can be Many factors such as reducing the symptoms of allergies, anti-inflammatory, anti-viral, anti-cough and reducing the symptoms of respiratory infections play an important role in the recovery of respiratory patients.

Discussion and Conclusion: According to the results of studies conducted on nigella seed and honey or their combination with each other has many properties such as reducing the symptoms of allergies, anti-inflammatory, anti-viral, anti-cough and reducing the symptoms of respiratory infections and easy access and cost They are less effective than chemical drugs and can be used as an effective herbal medicine to reduce the symptoms of a patient with Covid-19.

Keywords: Honey, nigella seed, Covid-19

covid19-02470279

Evaluating the Consequences of Delayed Referral of Patients with Covid -19 in Ilam: A Prospective Study

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Introduction: Covid -19 is a systemic infection that has a significant effect on hemopoiesis and homeostasis. Infected patients are at high risk for coagulation diseases such as venous thromboembolism. Therefore, the present study was conducted to investigate the consequences of delayed referral of patients with Covid-19 in Ilam.

Material and methods: In this study, a present prospective study was performed in 2020 on the registry data of patients with Covid-19 disease in the infectious ward of Shahid Mostafa Khomeini Hospital in Ilam. In this study, the effect of delay in hospitalization from the onset of the first symptom of the disease on death and intubation of patients in special and general wards in 2350 patients with Covid-19 was investigated. Delays in referrals were recorded by day and based on the biographies recorded in the patients' files. In this registry, only 96% of patients reported a delay of 1 to 60 days. The effect of this delay on mortality and their intubation rate was analyzed using logistic regression models in Stata 12 software .

Findings: The average number of days of delay in referral according to different variables for deceased patients, requiring intubation and requiring hospitalization in the ICU is listed in Table 1. The results of univariate logistic regression analysis for the main causes of death due to Covid 19 disease according to hospitalization in ICU and general ward showed that the variables of age, sex, marital status, heart disease, blood pressure, diabetes, chronic lung disease, chronic disease Kidney, neurological disease, cancer and delayed referral were

statistically significantly associated with death at the 5% error level. The chance of death for delayed referral in ICU patients is equal (OR ICU ADMISSION = 1.06; 95% CI, 1.01 - 1.12; P value = 0.01) and in normal ward patients (OR = 0.88; 95% CI, 0.79 - 0.97 ; P value = 0.01 was obtained.

Conclusion: According to the results of the final regression model and adapted to other variables, in hospitalized patients, for each day of delay in hospitalization, the chance of death due to Covid increases by 0.08% and the chance of intubation increases by 0.05 .

Keywords: Covid -19, mortality, delay in referral

covid19-02480205

The Process of Investigating Educational Accountability from Students Perspective during Corona Pandemic in Shiraz School of Rehabilitation

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Introduction: Universities are one of the most important sources of knowledge in every country. Medical fields are related to health and rehabilitation schools are playing important roles in health care system. So, educational accountability in such organizations must be considered during critical period of crisis.

Method: This process of research in education was performed in Shiraz School of Rehabilitation Sciences during Corona Virus pandemic. Students point of views were gathered in categories of challenges and chances among different students studying in fields such as occupational therapy, physiotherapy, speech therapy, audiology and orthotic and prosthetic. There were participants from junior to senior students.

Results: Results indicated these major challenges in which students faced with during virtual training: "feeling confused at first", "being confronted with so much uploaded lessons"," so much tasks in lessons with team teaching pattern", "most difficulties in individuals with migraine", "stress during virtual exams", " lack of smart phone and personal computer". "internet coverage". There were also report of chances like "spending more time with family", "good chance to study for master of science entrance exam" and "saving time in the absence of transportation" and "more attention on lesson contents."

Discussion: It seems that those students with migraine have so much problems during gazing at the monitors triggering their headaches so during virtual training this problem must be considered by providing more audios. At the beginning of Corona Virus pandemic so many people were shocked and stock in wondering but gradually they start to cope and those with more internal locus of control and more readiness to change were more flexible and creative in the process of adaptation. According to Khan frame-work in electronic learning there are eight categories mentioned in E-Learning that must be considered. One is technology which is restricted for some students. This was in line with the results of this process

Conclusion: In the light of the above it is suggested that some case-based loans may help

students in providing means of technology. To create more justice in educational system financial support can enable students in need. In order for providing educational accountability it is recommended that lessons be uploaded gradually and more time be allocated to task of lessons which are presented by team teaching method. Although the number of people with migraine are limited in every university but they have the right to be seen as equal as others, to help them auditory contents may be more suitable. To solve problems during virtual exams it is better to record the screen during exam. As another lesson gained which can be reinforced, students living in other cities than Shiraz were able to study their lessons at their home being with family members, time saving aspects in the absence of transportation create a good opportunity for spending time studying for higher education. So by solving problems, educational system can enhance accountability and create more educational justice and good aspects of virtual learning can enable more people in need of knowledge and education.

Keywords: student, crona pandemy, education

covid19-02480206

The Process of Investigating Professors' Point of View about Educational Challenges and Learnt Lessons during Corona Pandemic

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Introduction: Before Corona Virus pandemic some professors were willing to use blended teaching methods using virtual and electronic learning but during pandemic period all professors were to teach virtually. This sudden change create different challenges and circumstances. Since even after the epidemic condition virtual training may remain one important option in future education lessons learned from this chance worth paying attention.

Method: This process of research in education was performed in Shiraz School of Rehabilitation Sciences during Corona Virus pandemic. Professors point of views were gathered in categories of challenges, needs and solutions among different fields. There were participants from assistant professors to full professor.

Results: Results indicated these major challenges in which professorss faced with during virtual training courses: "spending more time for recording", "more complexity in virtually teaching of procedural courses", "being anxious about risk of being infected at work", "time consuming messages in unusual times" and there were needs of "more freedom in choosing means of holding classes or giving exams", "noise free environment for recording"," possibility of transferring files with more information" plus reporting "more readiness in those professor with previous experience of virtual courses". On the other hand the product of this period was evidence-based recorded files which could be studied by students repeatedly.

Discussion: University professors were confronted with emotional, psychological and vocational burdens. To increasing quality of recorded voices some criteria must be met. Problem-based learning can be used for those lessons which are related to examining patients. Sample case scenarios and discussions in forum can be helpful. Learning constructivism theories can help to enhance exploratory learning in students and behaviourism theories can be a clue in providing feedbacks. Professors can take the advantage of cognitive theories, Gestalt and memory principles to help organize perception and memorizing in students by the way they design their contents, its background and other related factors. Face to face interaction can be enforced according to conectivism theories considering the

communication. Online classes are suggested to be hold during offline courses. Since students are adults learners andragogy principles and heutagogy needs to be covered so that maybe this way of learning facilitate being a lifelong learner. According to Maslow's hierarchy of needs when basic needs like security are not met people are less prone to fulfil self-actualization so vaccination can somehow help to increase feeling of being safe not endangering family members by being present at work environment.

Conclusion: Meeting professors' needs and supporting them would help to provide students with optimised quality of education and achieve educational accountability. Establishing noise free environments technically will increase quality of the content or multimedia lessons. Since virtual training can be one best way to increase distant learning, It is suggested to provide more facilities in order for strengthening the foundation of standard quality, and enhancing virtually assessing and evaluation while considering the psychology of electronic learning .

Keywords: educational accountability; pandemic; professor.

covid19-02490204

Study of Lifestyle during Covid-19 Epidemic in Nursing Students of Yazd Shahid Sadoughi University of Medical Sciences in 1399

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Introduction: The spread of COVID-19 rapidly affected the daily lives of individuals, including students. It led to changes in students' usual curricula and nursing students' lifestyles. It has affected not only the personal life and health of nursing students but also the lifestyle and health of other people in the community. Therefore, this study aimed to determine the lifestyle of nursing students of Shahid Sadoughi University of Medical Sciences and Health Services during the COVID-19 epidemic in 2020.

Methodology: This is a descriptive-analytical study in 2020 on 171 nursing students of Shahid Sadoughi University of Medical Sciences and Health Services using the convenience sampling method. To collect the required data, demographic information form and lifestyle questionnaire during the COVID-19 epidemic were used. The collected data were then analyzed by SPSS software version 23 using descriptive and inferential statistics methods (independent t-test and ANOVA).

Results: The mean score of students' general lifestyle was at a moderate level, i.e., 38.08 ± 16.8. Mean scores of both happy and healthy lifestyles were at a low level, i.e., 21.66 ± 9.4 and 16.42 ± 8.5. There was no significant relationship between demographic characteristics and mean lifestyle score ($P \geq 0.05$).

Conclusion: Since the students' lifestyle score was at a moderate level and the score of lifestyle components (both happy and healthy) was at a poor level, and there is no end in sight to the COVID-19 pandemic, administrators and officials in universities and the Ministry of Health are recommended to devise plans and timely and effective interventions to improve the lifestyle of nursing students.

Keywords: Lifestyle, Nursing Students, COVID-19

covid19-02530264

Psychological Complication in Post-Covid Patients: A Qualitative Research

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Background: The increasing number of recovered COVID-19 patients exhibiting psychological consequences after infection highlights the need for further follow-up. The aim of this study was to explore the most common psychological experiences in post-acute COVID-19 patients to develop a rehabilitation program.

Method: This qualitative study was conducted on 15 patients with a history of hospitalization due to Covid-19 and they were recovering at home. The sampling method in this study was purposive and data were obtained by interviewing with patients. These interviews were transcribed and analysed by the conventional content analysis method.

Finding: In this study psychological complications that participants experienced after discharge from the hospital and in duration of recovery classified in two main categories. One category was emotional problems with subcategories including anxiety, mental repetition of hospital scenes, hopeless, feeling embarrassed, stress, fear of death, emotions related to the unknown future fear of readmission and second category was behavioral problems with subcategory impatience, feeling frustrated, indifference, intolerance of noise, aggressive behavior.

Conclusion: The results of this study emphasize to pay attention to the long-term complications of Covid-19 and the need to follow up patients after discharge in Iran. In the second phase of this study, researchers will develop and implement a program to improve psychological outcomes as part of a comprehensive rehabilitation program in these patients.

Keywords: Covid-19, Psychological Complication

E-Interaction between Non-Governmental Organizations Related to Health and University of Medical Sciences during Covid-19

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Coronavirus disease 2019 (COVID-19) has quickly spread globally. Information technology (IT) can be used in various dimensions to manage COVID-19, and IT tools can facilitate prevention, screening, diagnosis, treatment, and follow-up steps. Despite the importance of these systems, a lack of efficient use of information technology capacity was observed after the emergence of the new cases of COVID-19 in Iran. A web-portal can integrate different services and technologies for patients. An interactive portal is one of the advanced technologies that these organizations can use for health management. Medical sciences of universities play a vital surveillance role for enhancing the performance quality of NGOs. A web-portal can be a collaboration tool between health-related NGOs and medical sciences of universities. In this study, an interactive portal was developed by NGOs and a university. NGOs under the supervision and participation of Tabriz University of Medical Sciences' Center for Social Factors Research in COVID-19 management division of this portal separated classified information into two sections, informatics and services. This portal is accessible to the general public, patients, service providers, and, importantly, policymakers and presents educational and medical research information to all users. For patients and the general public in high-risk environments, increasing information security, reducing confusion regarding finding needed information, and facilitating communication are only part of the portal's benefit. It seems that web-portal capacity is needed to control COVID-19 in the digital age. The collaboration of academic and university bodies in the context of health portals can play key roles for coverage of the COVID-19 pandemic. The aim of this article is to present E-Interaction between Non-Governmental Organizations related to Health and Medical University during Covid-19.

Keywords: E-Interaction, Non-Governmental Organization, Covid-19

covid19-02570211

Estimation of Direct Medical Costs of Novel Coronavirus Disease in Fars Province and its Financial Burden in Iran in 2020

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Background: This study aimed to estimate direct medical costs (DMCs) of treating the Coronavirus disease 2019 (COVID-19) from a health system perspective in the patients at a referral hospital in Fars province as well as the economic burden of COVID-19 in Iran in 2020.

Methods: This study is a partial economic evaluation and a cross-sectional cost-description study conducted based on the data of the COVID-19 patients referred to a referral university hospital in Fars province between March and July 2020. The data were collected by examining the patients' records and accounting information systems. The subjects included all the inpatients with COVID-19 (477 individuals) who admitted to the medical centre during the 4 months. Bottom-up costing (also called micro-costing approach) and incidence-based approach were used as the main methodological features of this study.

Results: The DMCs were estimated 28,240,025,968 Rials ($ 1,791,172) in total with mean cost of 59,203,409 Rials ($ 3,755) per person, a significant part of which (41 %) was that of intensive and general care beds (11,596,217,487 Rials equal to $ 735,510) .The second to which were the costs of medicines and medical consumables (28 %). Furthermore, the financial burden of the disease in the country for inpatient cases with the definitive diagnosis was 22,688,925,933,095 Rial equal to $ 1,439,083,784.

Conclusion: The results of this study showed that the severe status of the disease would bring about the extremely high cost of illness in this case. It is estimated that the high prevalence rate of COVID-19 has been imposing a heavy financial burden on the country and health system directly that may result in rationing or painful cost-control approaches.

Keywords: COVID-19; Financial Burden; Direct Medical Costs

covid19-02590208

The Relationship Between Health Anxiety and Prenatal Distress with Choosing the Type of Childbirth in Pregnant Women during Covid-19 Outbreaks in Iran

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Background: Corona Virus (COVID-19) is a serious infectious disease that is rapidly spreading worldwide and causes considerable anxiety in people. The pregnant women are more prone to increase anxiety caused by the disease epidemic and this issue can lead them to make decisions which not only help them but also it can result in harmful outcomes. This study explored the relationship between health anxiety and prenatal distress with choosing the type of childbirth in pregnant women during COVID-19 outbreaks in Iran.

Methods: This is a descriptive-analytical study on 200 nulliparous pregnant women who referred to health centers to perform routine pregnancy care. Convenient sampling was used and each nulliparous pregnant woman who tended to enter the study was enrolled. The questionnaires used, were Demographic and Midwifery information, Health Anxiety Index-short form (HAI-18) and Prenatal Distress Questionnaire (PDQ). After filling out the questionnaires, two questions regarding the type of delivery selected by them before and during the epidemic of COVID-19 and the reason for the selection were asked .

Results: Women's health anxiety showed significant statistical differences among various groups. The highest score was observed in the group that chooses vaginal delivery at first but they selected the cesarean section during the COVID-19 pandemic. During the outbreak, the prenatal distress score was higher in women who choose cesarean section.

Conclusion: Due to the increase in pregnant women's Health anxiety and prenatal distress during the COVID-19 epidemic and its effect on the choice of delivery, planning to promote the mental health of pregnant women is very important.

Keywords: Health Anxiety, Prenatal Distress, Childbirth

covid19-02600282

E-Health Interventions for Patients with Cardiovascular Disease during Covid-19

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Objective: People with cardiovascular disease have higher risk of developing coronavirus. They also have higher risk of morbidity and mortality rate. The social distancing and public fear of the virus postponed follow-up and manage patients' underlying medical problems in cardiovascular patients during the Covid-19 pandemic. The innovation in technological advances provide a new opportunities for overcoming the problems and challenges of this pandemic. The aim of this study is to review the effect of E-Health interventions for managing patients with cardiovascular disease during Covid-19.

Methodology: The review was conducted on studies published from 2019 to 2021, in PubMed, Web of Science, Google Scholar and Scopus databases. The review was conducted based on the proposed Arksey and O'Malley framework. a) Identifying the research objectives and search strategy b) Identifying relevant articles c) sStudy selection d) Data extraction and e) ummarizing, discussing, analyzing and reporting of results.

Result: Studies have confirmed the effectiveness of e-health approaches including telemedicine systems, artificial intelligence, electronic health records, expert systems and monitoring systems to reduce contact, rapid screening and proper disease management & control. E-health intervention minimized the risk of infected with Covid-19 in patients. Also decreased waiting time to visit, saved a cost, and maintained same quality of care in comparison to traditional visit .

Conclusion: Proper use of e-health technologies requires adequate infrastructure and proper use of this infrastructure. Also, users should receive the necessary training in this field and technologies should be provided according to the needs of users. With applying standard e-health tools and systems, it is possible to optimally use of resources and follow-up of patients.

Keywords: E-Health, Cardiovascular Disease, Covid-19

covid19-02620303

Frequency of Coagulopathies in Patients Hospitalized for COVID_19 in RAZI Hospital in Rasht from March 2020 to March 2021

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Introduction: Coronavirus is a new health problem in the world that has caused major problems in the health structure that its complications, especially those related to coagulation problems are necessary to reduce the incidence. Therefore, the aim of this study was the frequency of coagulation disorders in patients with coronary heart disease admitted to Razi Hospital in Rasht from March 1998 to March 2010.

Materials and Methods: This study was performed on 216 hospitalized patients with coronary heart disease. After recording demographic information, coagulation disorders were also recorded. Mann-Whitney and Chi-square tests were used to compare data.

Results: The results of the present study showed that 53.2% of patients admitted due to coronary artery disease had coagulation disorders. The most common coagulation disorders in patients with coagulation disorders and Covid 19 were PTT disorders (55.7%), platelet disorders (47.8%) and impaired D-dimer (36.6%), respectively. Findings of our study showed that coagulation disorders are associated with disease severity, ICU hospitalization and mortality, but the frequency of coagulation disorders in patients with Covid 19 based on age, sex, underlying disease and symptoms and lung involvement, hospitalization In the ward, the length of hospital stay in the ward and the length of hospital stay in the ICU were not statistically significant.

Conclusion: Unfavorable prognosis in patients with coronavirus with high coagulation disorders is that by identifying individuals with coagulation disorders and trying to take appropriate treatment measures, the incidence of patient mortality can be reduced.

Keywords: Corona, Coagulation Disorders, Platelet Disorders, D-dimer

covid19-02660223

Nurse's Professional Quality of Life and its Association with Mindfulness and Hardiness: A Cross-sectional Study during the COVID-19 Outbreak

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Aim: Investigating the relationship between quality of professional life and mindfulness and hardiness of nurses during the outbreak of covid-19 in rafsanjan, Iran.

Methods: This cross-sectional study was conducted on 239 nurses working in two centers of university medical Rafsanjan, Iran. Data were collected with demographic questionnaire, the Professional Quality of Life Scale (ProQOL), the Freiburg Mindfulness Questionnaire (FMI-SF) and the Occupational Hardiness Questionnaire (OHQ).

Results: The majority of nurses had moderate levels of compassion satisfaction (CS), secondary traumatic stress (STS) and burnout (BO). Positive significant correlation was observed between CS with hardiness (r = 0.52), and mindfulness (r = 0.41). STS had a negative significant correlation with hardiness (r = -0.34), and mindfulness (r = -0.46). Similarly, significant correlation was found between BO and mindfulness (r = -0.30). The

best predictor for compassion satisfaction was hardiness. The best predictor for both secondary traumatic stress and burnout was mindfulness.

Conclusion: Considering that hardiness and mindfulness had the greatest impact on the quality of life of nurses in the COVID-19 pandemic, it is recommended that in order to improve the quality of nurses' professional life, programs and psychological interventions necessary to improve hardiness and mindfulness to be designed and implemented.

Keywords: Hardiness, Mindfulness, Professional Quality of Life

covid19-02660225

The Effect of Range of Motion Exercises and Massage on Muscle Strength and Intensive Care Unit Acquired Weakness in Patients with COVID-19 Disease: A Single-Blinded Randomized Parallel Controlled Clinical Trial

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Objective: The aim of this study was to compare the effects of massage and range of motion (ROM) exercises on muscle strength and Intensive Care Unit Acquired Weakness (ICU-AW) in Coronavirus disease 19 (COVID-19) patients.

Methods: This randomized clinical trial study was conducted on 45 conscious COVID-19 patients admitted to ICUs, who were divided into three groups (range of motion exercises, massage and control) using block randomization method. The researcher did passive and active ROM exercises on lower/upper extremities, once a day for seven consecutive days. Using Swedish massage, the researcher massaged lower/upper extremities, back and chest of the patients in the massage group once a day for seven consecutive days. The co-researcher, who palyed no role in random allocation of the samples into the groups, evaluated muscle strength in arms and legs using hand dynamometer and ICU-AW using Medical Research Council sum score (MRC-SS) before and after the intervention.

Results: The findings of the present study showed that 0%, 20% and 100% of the samples in the massage, the ROM exercise, and control groups had ICU-AW after the intervention. The MRC scores of the ROM exercise and massage groups increased after the intervention, and the muscle strength in hands and legs of the ROM exercise group was higher than that of the massage and control groups and it was higher in the massage group compared with the control group (P).

Keywords: Intensive Care Unit Acquired Weakness, Range of Motion, Massage

covid19-02660226

Muscle Strength and Intensive Care Unit Acquired Weakness in COVID-19 and Non-COVID-19 Patients: A Cross Sectional Study

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Background: Intensive care unit acquired weakness is a common problem in ICU that affects COVID-19 and non-COVID-19 patients. ICU-AW can lead to multiple complications and even increased patient mortality. The current study aimed to compare muscle strength and ICU-AW in COVID-19 and non-COVID-19 patients.

Methods: This was a cross-sectional descriptive-analytical study. Fifteen conscious COVID-19 patients and 15 conscious non-COVID patients admitted to intensive care units of a public hospital were selected by convenience sampling. Muscle strength in arms and legs was assessed by a hand-held dynamometer and ICU-AW was measured with MRCSS scale on the first, fourth and seventh days of admission to intensive care units.

Results: The findings of the present study showed that in all three measurements, muscle strength in arms and legs of the COVID-19 patients was significantly less than that of non-COVID-19 patients. However, the wrist muscle strength did not differ significantly between the two groups at different times. In addition, the mean MRC in COVID-19 patients was significantly lower than that of non-COVID-19 patients on the first, fourth and seventh days of ICU admission. 66.7% of the COVID-19 patients and 26.7% of the non-COVID-19 patients had ICU-AW on the first day of ICU admission. 80% of the COVID-19 patients and 40% of the non-COVID-19 patients had ICU-AW on the fourth day of ICU admission. 100% of the COVID-19 patients and 86.8% of the non-COVID-19 patients had ICU-AW on the seventh day of ICU admission.

Conclusions: Decreased muscle strength and ICU-AW are more likely in the COVID-19 patients who require prolonged stay in the ICU compared with the non-COVID-19 patients. Therefore, health systems should plan to provide rehabilitation facilities for ICU-AW-prone COVID-19 patients and prevent long-term complications of COVID-19.

Keywords: Intensive Care Unit Acquired weakness, Range of Motion, Massage, Intensive Care Unit

covid19-02670249

Survey the Stress, Anxiety and Depression among Nurses Working in COVID-19 Referral Hospitals in Isfahan 2020-21

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Introduction: With the outbreak of Coronavirus disease (COVID-19) worldwide, nurses as a member of the treatment team were at the forefront of the fight against this disease. The psychosocial consequences of the coronavirus pandemic are serious for health professionals including nurses because of a higher level of exposure. Considering the effect of environmental stressors on mental health and the great stress that exists in clinical settings for the care of patients with COVID-19, as well as the importance of nurse's mental health; The aim of this study was to Survey the stress, anxiety and depression of nurses working in COVID-19 referral hospitals.

Methods: This cross-sectional study was a descriptive - analytical one, conducted on 297 nurses working in the clinical wards of COVID-19 Isfahan hospitals selected using a simple sampling technique. The data collection instrument included a questionnaire containing two parts (demographic information and standard DOSS-42 questionnaire). The data were analyzed with 95% confidence by SPSS 16 (SPSS Inc., Chicago, IL, USA) using descriptive and analytic statistics.

Results: Based on the findings of the present study the prevalence of depression, anxiety and stress in nurses was respectively 27%, 35.35%. and 21%. Results showed that the average score for stress, anxiety and depression were 11.04 (7.38), 8.4 (5.27) and 9.15 (4.52) from score 42 relatively.

In terms of anxiety level, 34 nurses (11.4%) had extremely severe anxiety, 31 nurses (10.4%) had severe anxiety and 40 ones (13.5%) had moderate anxiety. Regarding the level of depression, 17 nurses (5.7%) had extremely severe depression, 22 nurses (7.4%) had severe depression and 42 ones (14.1%) had moderate depression. In association with stress, 7 nurses (2.4%) had extremely severe stress, 14 nurses (4.7%) had severe stress and 42 ones (14.1%) had moderate stress. Based on the study findings there was a statistically significant correlation between depression and marital status (P= 0.02, F= 3.90), anxiety

and marital status (P= 0.02, F= 3.60), as well as stress and marital status (P= 0.05, F= 2.87), but there was not a statistically significant correlation between depression, anxiety and stress with other demographic variable such as age, gender, educational level or employment status (p> 0.05)

Discussion and Conclusion: According to the present study, Stress, anxiety and depression were prevalent among clinical nurses and the rate is remarkable. Institutional effort should be emphasized to support nurses in their career development to reduce psychological strains. It seems that paying attention to training nurses to deal with critical situations similar to COVID-19, and increasing personal protective equipment can be effective in preventing nurses from developing depression, stress, and anxiety.

Keywords: COVID-19, Mental Health Disorders, Nurse

The Relationship Between Quality of Life and Spiritual Well-Being in Nurses Working in COVID-19 Referral Hospitals in Isfahan

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Introduction: Spirituality, a source of comfort, support and meaning, instills the idea of a sense of belonging and existential interconnectedness, promoting mental health. Especially in stressful situations like COVID-19 pandemic, faith and spirituality seem to also act positively. The aim of this study was to investigate the relationship between spiritual well-being (SWB) and mental health in nurses working in COVID-19 referral hospitals in Isfahan 2020-21.

Methods: This cross-sectional study was a descriptive - analytical one, conducted on 297 nurses working in the clinical wards of COVID-19 Isfahan hospitals selected using a simple sampling technique. The data collection instrument included a questionnaire containing three parts (demographic information, standard DASS-42 questionnaire and spiritual well-being questionnaire of Polutzin and Alison). The data were analyzed by SPSS 16 (SPSS Inc., Chicago, IL, USA) using descriptive and analytic statistics.

Results: Pearson's correlation coefficient showed statistically significant relationships between spiritual well-being and stress ($P < 0.001$, $r = -0.58$), anxiety ($P < 0.001$, $r = -0.59$), and depression ($P < 0.001$, $r = -0.62$) in participants. The 2 aspects of spiritual wellbeing were also significantly correlated with stress, anxiety, and depression.

Discussion and Conclusion: According to our findings, nurses with higher scores of spiritual well-being had lower levels of stress, anxiety, and depression. Therefore, strategies which increase SWB must be emphasized to boost mental health among nurses.

Keywords: COVID-19, Mental health, Spiritual Well-Being

covid19-02700243

Mental Health Status of Pregnant Women and Identify Risk Factors during the COVID-19 Pandemic: A Review Article

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Background: The spread of Covid-19 virus was unique in that it transmitted rapidly, creating an emergency in global health around the world. As in every situation, the most fragile always tend to suffer more. According to studies, increased levels of anxiety and stress during pregnancy increase preeclampsia, pregnancy depression, nausea and vomiting during pregnancy, preterm delivery, low birth weight and even low Apgar score. This study aims to understand the impact of COVID-19 on mental health and identify risk factors during pregnancy.

Materials and Methods: The search process was conducted to screen the databases of ProQuest, Scopus, EMBASE, Web of Science, and MEDLINE for the relevant articles published between 2019 and 2021.

Result: The prevalence of anxiety was from 3.8 to 17.5% in Asian countries and from 23.9 to 72% in Western countries. The prevalence of depression was from 5.2 to 40%. Pregnant women showed a pronounced increase in depression, anxiety and negative affect in the pandemic. The incidence of self-harming thoughts as a result of a pandemic has been significantly increased. In some cases, some pregnant women may not see a specialist to monitor their condition and that of the fetus for fear of developing Covid-19. In some cases, it has been reported that due to excessive anxiety and worry, some pregnant women want termination of pregnancy and elective cesarean section. Some pregnant women are also concerned about their children postpartum for screening and vaccination in the event of a Covid-19 outbreak. Risk factors associated with mental health included having a chronic mental illness, a chronic somatic illness in the postpartum period, smoking, having an unplanned pregnancy, professional status and Social isolation, financial trouble, relationship difficulties and threat of COVID-19.

Conclusion: This study found high levels of depressive symptoms and generalized anxiety among pregnant women during the COVID-19 pandemic. The study finds the importance of monitoring perinatal mental health during pandemics to protects maternal mental health.

Keywords: Mental Health, Pregnant Women, COVID-19

The Role of Social Emergencies in Adopting Preventive Measures to Protect Working Children from Getting to COVID-19: A Qualitative Study

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Introduction: Child labor is a significant issue and challenge in most large cities, particularly in underdeveloped and developing countries. These children are subjected to a wide range of physical, mental, and social harms, particularly in public health emergencies and crisis. COVID-19 epidemic, as a public health emergency, is currently one of the focusing events that can endanger the health of working children. The Iran Welfare Organization is one of the organizations tasked with protecting and assisting society's most vulnerable members, mainly working and street children. In this regard, this organization, forming social emergency services, actively and effectively provides services to vulnerable people such as street children. Since the strengths and weaknesses of the social emergency services in response to street children affected by the COVID-19 epidemic are unknown and few studies have been performed. The present study investigates the role of social emergencies in adopting preventive measures to protect working children from getting COVID-19.

Method: This was a qualitative study. The researchers used two data collection methods: key structured interviews and document reviews. A snowball strategy was used to select the interviewees, who included 12 key informants from child labor and social emergency centers. Seven national and provincial documents on protecting working children, including guidelines and reports, were examined. The results were analyzed using qualitative content analysis using MAX-QDA 2018 software.

Results: The results showed four main topics, including actions, strengths, challenges, and solutions. In the actions section, five themes were identified (organizing working children, economic support for children and families, psychological support for working children,

health measures and educational measures). Two themes (sector cooperation and approval and implementation of health protocols) were identified in the field of strengths. Ten themes were identified, including political, economic, cultural, health, inadequate living environment, poor management of social crisis, inter-organizational communication, legal, educational, and managerial. Two themes (increasing supervision, providing necessary resources) were identified in the solutions section.

Conclusion: The current study found that in the field of COVID-19 prevention for working children, measures such as providing livelihood packages, establishing a secretary of the child-friendly city in the municipality, supporting family employment, and preparing educational content were effective. The existence of non-governmental organizations, charitable cooperation with the social emergency in identifying working children and higher cooperation of welfare and governorship with working children centers are among the plan's strengths. On the other hand, among the existing challenges were a lack of transparency in the role of child protection institutions during COVID-19 and a lack of sufficient resources to support working children. Government and charitable support in providing resources, updating guidelines, clarifying inter-organizational communications, and reviewing the services and responsibilities of responsible organizations are some solutions to this challenge. Monitoring the proper performance of organizations can also effectively fulfill social emergencies and child labor centers in providing and improving preventive services for child labor in public health emergencies like COVID-19 epidemic.

Keywords: COVID-19, Child Labor, Working Children, Street Children, Social Emergency

covid19-02720240

Effect of Ammonium Chloride in Addition to Standard of Care in Outpatients and Hospitalized COVID-19 Patients: A Randomized Clinical Trial

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Objectives: COVID-19 pandemic has called an urgent need for drug repurposing to improve the outcome of the disease. Quaternary ammonium compounds have been demonstrated to have antiviral effects and may be of use against SARS-CoV-2 infections.

Design: In this double-blinded, single-centered study, we enrolled patients with positive PCR test and/or CT findings for COVID-19. The participants of each group were randomly assigned to Diphenhydramine Compound (Diphenhydramine + Ammonium Chloride) plus

standard of care or to Diphenhydramine alone and standard of care groups. The primary outcome was all-cause mortality within 30 days of randomization. Secondary outcomes include viral burden, clinical status, assessed by a 5-point ordinal scale, and length of stay in hospitalized patients.

Results: A total of 120 patients were included in the trial, 60 of which were assigned to Ammonium Chloride group. The primary endpoint was not statistically different between the two groups (HR: 3.02 (95% CI, 0.57-16.06; p=0.195)). Recovery time and viral burden were significantly lower in the Ammonium Chloride group corresponding to odds ratios of 1.8 (95% CI, 1.15-2.83; p=0.01) and 7.90 (95% CI, 1.62-14.17; p=0.014), respectively.

Conclusion: The findings of the study advocate the careful addition of Ammonium Chloride to standard of care for COVID-19 patients.

Keywords: COVID-19, Ammonium Chloride, SARS-CoV-2, Randomized Clinical Trial, Lysosomotropic Agents

Safety and Efficacy of Remdesivir for the Treatment of COVID-19: A Systematic Review and Meta-Analysis

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Introduction/Goal: COVID-19 pandemic, which was first detected in Wuhan City in December 2019, is one of the most critical global public health challenges of the present century. Worldwide, more than 60 million infected patients with more than 1.4 million deaths were also reported by coronavirus on the 21 of November 2020. Also, hospitals and their services have been affected by the coronavirus in many ways, including reducing efficiency, increasing fatigue and frustration of healthcare workers, and increasing hospitalization (length of hospital stay). It additionally reduced hospital services for new patients and increased hospital workloads for staff. There is no completely effective drug to treat COVID-19. Remdesivir was one of the medications that the FDA quickly approved for the care of certain COVID-19 patients. The current research sought to systematically review and meta-analyze the results of related individual studies in order to assess the safety and efficacy of remdesivir in adult patients with COVID-19.

Data and Methods: A search strategy tailored to each database was used to search PubMed, Embase, Scopus, Web of Science, Cochrane Library, ClinicalTrials.gov, and medRxiv until the 31 of October 2020. A combination of COVID-19, remdesivir, safety, and efficacy keywords have been used in the search strategy based on each specific database. Our systematic review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines. Two authors extracted data independently. For the qualitative assessment of the studies, the Consolidated Standards of Reporting Trials (CONSORT) and Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklists were used. Mortality, adverse event, serious adverse event, and clinical improvement were the outcomes studied. The quantitative synthesis was carried out in CMA 2.2 using fixed and random effects models. The I-squared (I2) measure was used to assess heterogeneity.

Results: A total of 1223 articles were found which six studies were found to be eligible, including five randomized controlled trials and one cohort study. A comparison of the findings from the remdesivir (10-day remdesivir group) and placebo/control groups revealed that remdesivir treatment significantly reduced mortality at day 14 of treatment (RR=0.769; 90% CI:0.592-0.998; p=0.098), 14-day clinical improvement (OR=1.447; 95% CI:1.005-2.085; p=0.047), and serious adverse events (RR= 0.736; 95% CI: 0.611-0.887; p= 0.001).

Conclusion: According to the available studies, the findings showed that remdesivir had a favorable and effective impact on mortality at day 14 of care, clinical improvement, and a decreased risk of serious adverse events in patients with COVID-19.

Keywords: COVID-19, Remdesivir, Efficacy

covid19-02740241

Cost-Effectiveness of Remdesivir for the Treatment of COVID-19 in Iran

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Introduction and Goal: The Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) was first identified in China, where it caused the Coronavirus Disease 2019. (COVID-19). After its discovery, the virus has spread to over 200 countries and killed over three million people. COVID-19 has the ability to endanger people's lives and livelihoods all over the world. The disease is currently a major public health issue in Iran and around the world. For the treatment of this disease, no fully effective drug has been proposed, and only a few antiviral drugs that have historically been used to treat other viral diseases have been proposed. Remdesivir is one of the most effective of these medicines. While its efficacy has been demonstrated in several clinical trials, its costs and cost-effectiveness remain unknown. As a result, the current research sought to assess the cost-effectiveness of remdesivir for the care of COVID-19 patients.

Methods: A Markov model was developed to estimate the 30-day costs, Quality-Adjusted Life Days (QALDs) and Incremental Cost-Effectiveness Ratios (ICERs) for three strategies including remdesivir plus supportive care (SC), favipiravir plus SC and SC from healthcare perspective.The model included six health states (Mild, Moderate, Severe, Critical, Recovery, and Death) with a daily cycle length. The willingness to pay threshold is considered three times the gross domestic product (GDP) per capita for Iran in 2019. On October 2020, the model inputs were derived from the literature, patient records, and expert infectious opinions at Afzalipour Hospital in Kerman.. Both deterministic and probabilistic sensitivity analysis were conducted to evaluate the model robustness.

Results: The results showed that the remdesivir plus SC strategy was associated with the lowest cost of USD 29,203. The strategy involving favipiravir plus SC had the highest cost of USD 29,380. The remdesivir plus SC strategy was found to be the most effective, with 20.359 QALDs. However, the effectiveness of favipiravir plus SC and SC alone was 19.502 QALDs. The remdesivir plus SC strategy was cost-saving, and it was located in the southeast

quadrant of the cost-effectiveness acceptability plane. Sensitivity analyses confirmed the robustness of these results .

Conclusion: Treatment with remdesivir plus SC will improve patient outcomes, provide a good value for money within 30 days, and be ultimately cost-saving. People who are treated promptly and recover quickly will have a lower risk of developing the disease, lowering the health-care system's costs. As a result, it is recommended that the government increase hospital access to remdesivir and insurance companies provide maximum coverage.

Keywords: COVID-19, Remdesivir, Cost-Effectiveness

covid19-02800256

Evaluation and Comparison of Anxiety of Medical University Students with Non-Medical University Students during Covid-19 Epidemic

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Purpose: The spread of any infectious disease is associated with anxiety, fear, and psychological distress. Corona epidemics have increased the level of anxiety in the community, especially medical students, who are psychologically vulnerable groups. Because they are more exposed to viruses and diseases. Also, fear of infection, epidemic situation, unexpected quarantine, restrictions and online classes are likely to affect the psychological state of students in all disciplines.

Method: In this descriptive cross-sectional study, the Electronic Corona Anxiety Inventory (CDAS) was prepared and validated to measure anxiety caused by the prevalence of Corona virus with a Cronbach's alpha coefficient of 0.919 in Iran. Sent to students of Sabzevar University of Medical Sciences and Hakim Sabzevari University. 232 questionnaires were completed by the students of the University of Medical Sciences and 224 questionnaires were completed by the students of Hakim University.

Results: Findings of this study showed that women had higher levels of anxiety than men. Also, students of the University of Medical Sciences with an average and standard deviation of anxiety reported 38.45 ± 15.04 higher levels of anxiety than students of Hakim Sabzevari University with an average and standard deviation of anxiety of 25.61 ± 13.81.

Conclusion: According to the results of this study, which shows an increase in the level of anxiety of students during the covid-19 epidemic. It is better to take measures to control the level of anxiety of students of all disciplines during this epidemic.

Keywords: anxiety; Covid-19; Students

covid19-02800258

The Effect of Quran's Sound on Anxiety in Patients with Covid-19

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Purpose: Fear of the unknown has always been an anxiety in human beings. Because Covid-19 disease is an emerging disease and little information is available about it, it causes anxiety in people, especially those with the disease. To reduce patients' anxiety, the non-pharmacological method of invigorating the   sound of Holy Quran can be used.

Method: In this study, an intervention was performed on 84 patients admitted to the corona ward of Sabzevar Vasei Hospital. Patients were randomly divided into intervention and control groups. At the time of admission, patients' anxiety levels were measured on the Spielberger scale after discharge. For the intervention group, the sound of the Quran was played to them twice a day for 20 minutes. The duration of hospitalization was at least 3 days and at most 7 days.

Results: The mean and standard deviation of the age criterion was 46.31 ± 7.11 in the intervention group and 44.76 ± 10.12 in the control group. Anxiety was measured before and after discharge using independent t-test. The results showed that the mean and standard deviation of the anxiety score of patients in the intervention group at the hospital was 71.87 ± 12.36 and in the control group was 70.54 ± 13.09. But after discharge, the mean and standard deviation of the anxiety score of the intervention group was 38.9 ± 9.61 and in the control group was 52.11 ± 13.08, which is significantly lower than the control group ($p<0.05$).

Conclusion: Due to the effectiveness of the Quran in reducing patients 'anxiety in this study, this non-pharmacological and low-cost method can be used to reduce patients' anxiety and their mental health.

Keywords: anxiety; Covid-19; Quran

covid19-02820281

Prenatal and Neonatal Complications of COVID-19: A Systematic Review

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Introduction: The outbreak of coronavirus disease 2019 over the past year has affected public health worldwide and led to many deaths. During pregnancy, the mother's immune system and inflammatory responses are widely suppressed. This review has focused on the possible complications of COVID-19 infection in the fetus and new-born babies by reviewing articles published in the SARS-CoV-2 pandemic during last year.

Methods: We conducted a systematic search using PubMed, Embase, and Scopus databases on prenatal and neonatal complications of COVID-19 published by January 2021. The studies followed a title/abstract and a full-text screening process, and the eligible articles were included in the study.

Results: 33 studies were included. The most frequent clinical signs and symptoms of pregnant women with COVID-19 were fever (72%) and cough (62%). As for comorbidities, more than half of the women did not present any comorbidity (63%). Among those with comorbidities, the most common was fetal distress (16%). Twenty-seven infants were born from twenty-seven women, predominantly through C-section delivery (78%), there was medical indication to half of these due to maternal comorbidities or infection. Of the 27 newborns, two died, one of these died along with his/her mother. Of 26 newborns who were tested for SARS-CoV-2 two tested positive. In 13 cases (48%), newborns were isolated from mothers, and, in six cases, the placenta was analyzed for pathological alterations. There were no confirmed cases of vertical transmission .

Conclusion: Mode of delivery in the majority of COVID-19-infected women was C-section. Since new data is created and published on a regular basis, the results of this study can be supplemented with new research. The findings of this study can be used to direct and enhance prenatal therapy for pregnant women who are infected with COVID-19.

Keywords: SARS-CoV-2, COVID-19, Prenatal, Neonatal, Newborn, Neonate, Fetus, Embryo

covid19-02820291

Effects of COVID-19 Prevention Procedures on Other Common Infections: A Systematic Review

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Introduction: Since the outbreak of the severe acute respiratory syndrome, coronavirus-2 (SARS-CoV-2)cc began, necessary measures to prevent virus transmission and reduce mortality have been implemented, including mandatory public use of masks, regular hand-sanitizing and hand-washing, social distancing, avoidance of crowds, remote work, and cancellation of public events. During and after the introduction of COVID-19 lockout, we performed a systematic review of available published literature to investigate the decrease in seasonal influenza virus incidence and respiratory viral infections.

Methods: PubMed, Embase, Web of Science, Scopus, Science Direct, Google Scholar, Research Gate, and the World Health Organization databases and websites were systematically searched for original studies concerning the impact of COVID-19 prevention means and procedures on other common infectious diseases during the pandemic published by March 2021.

Results: According to the findings of this study, adherence to health protocols to prevent COVID-19 could help to reduce the incidence of other infectious diseases such as influenza, pneumonia, and Mycobacterium tuberculosis.

Conclusion: The implemented prevention measures and protocols might have reduced the incidence of influenza and some other common infections. However, controversies exist on this matter and future large population-based might provide further information to address these controversies.

Keywords: COVID-19, SARS-CoV-2, Infection, Prevention

Technology-Based Strategies to Address Challenges of Nursing Care during COVID-19 Pandemic

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Introduction: Nurses are among the most important front line healthcare workers caring for patients with COVID-19. They encountered with several challenges during care process, especially in the first phases of this pandemic. To address them, various strategies were carried out by nurses. This study was conducted to explore the nurses' experiences facing the COVID-19 pandemic with focus on strategies using new technologies.

Method: This qualitative content analysis was conducted on 18 nurse working at the University Hospitals of Mashhad University of Medical Sciences from April to June 2020, using semi-structured interviews. Data were analyzed using Lundman and Graneheim method.

Result: The most important challenges were "insufficient information about COVID-19", "inadequate experience in patient management", "challenges in patient education and follow up", and "emotional challenges". Nurses utilized technology-based strategies to address these challenges, such as: webinar-based CMEs to increses their knowledge, the capacity of social-networks for experience sharing, web-based or application-based education and follow-up for patients, and online counsultation or telepsyciatry for their mental stresses.

Conclusion: Encountering crisis such as pandemics leads to serious challenges for healthcare providers. Nurses share their knowledge or experiences with their co-workers, track and monitor patient status even at their home, and benefit from telecounsultation with psychiatrists, if they are properly trained in implementing new technologies, leading to better management of pandemic condition.

Keywords: COVID-19, Nursing Care, Technology

covid19-02860265

COVID-19 in Cancer Patients: Demographic and Clinical Characteristics, Managements, and Disease Outcome

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Introduction/Goal of study: Cancer patients are considered to be one of the most vulnerable groups to SARS-CoV-2 infection and the development of more severe symptoms of the coronavirus disease of 2019 (COVID-19), possibly due to the therapeutic effects of anticancer drugs and tumor growth, and suppression of the immune system. The aim of this study was to investigate the clinical features, risk, management and disease outcome of COVID-19 in patients with cancer in Iran.

Data and Methods: This study is a descriptive-analytical cross-sectional study, which is based on the information collected from patients with cancer and diagnosis of COVID-19, in Chaharmahal and Bakhtiari province of Iran in 2019-2020. The confirmed cases of COVID-19 in this study were cancer patients who have clinical symptoms of COVID-19 and have referred to the hospitals and their PCR test result is positive for COVID-19. In this study, the relationship between gender and outcome of disease evaluated with logistic regression model, also t-test was used to compare the mean of age between men and women, and deceased and surviving patients .

Results: A total of 102 cases of COVID-19 were seen in patients with or with a history of cancer. 48 %(49 case) of the patients were men and 52 %(53 case) were women. The mean ± Standard Deviation (SD) age of patients is equal to 62±15.74 (in men 63.34±19.24 and in women 60.75±11.91; P.value=0.412). 64.7 % of patients were in the age group of 60 years and older. 18.62% of patients had a history of contact with a COVID-19 case. 54.9% of patients had fever, 22.54% had muscle pain, 45.1% had cough, 57.84% had respiratory distress, 8.82% had decreased level of consciousness, 10.78% had nausea, 8.82% had vomiting, and 9.8% had weakness and lethargy. In addition, 17.64% of patients had diabetes, 10.78% had cardiovascular disease, and 12.74% had high blood pressure. Partial pressure of oxygen (pO2), in 82.35% of the patients was less than 93%. Also, 39.21% of the patients received chemotherapy drugs, and 72.54% were hospitalized for less than 10 days. In hospital case fatality rate COVID-19 in all patients was 26.47% (in men equal to 36.73% and in women equal to 16.98). Un-adjusted odds ratio (OR) of mortality in patients with cancer, in compare to women in men was equal to 2.83(95% confidence interval (CI) =1.03-8.10;

P.value=0.0239). The mean age of deceased cases was equal to 67.29±17.04, and in surviving patients was equal to 60.09±15, P.value=0.042.

Conclusion: According to the results of this study, it can be stated that cancer patients have a relatively high mortality rate in the case of COVID-19, so that about a quarter of these people die due to the disease. In addition, men have a worse prognosis than women, which needs to the cause of this difference evaluated in studies with higher sample size.

Keywords: COVID-19, Cancer Patients, Mortality

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Evaluation of the Relationship between Age and Long-Term Hospitalization in Patients with COVID-19

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Introduction/Goal of study: Coronavirus disease 2019 (COVID-19),which has caused a recent global pandemic, was first reported in Wuhan, China, and is probably one of the most common zoonotic coronaviruses. Currently, COVID-19 is a pandemic worldwide that its new cases and deaths have been reported in most countries around the world. Undoubtedly, the length of hospitalization can indicate the severity of the disease, so the study of the length of hospitalization, in addition to showing the economic affects of the disease on the health care system, society and individuals, but also can help determine the prognosis of the disease in patients. Accordingly, this study was conducted to investigate the relationship between age and length of hospitalization.

Data and Methods: This study is a descriptive-analytical cross-sectional study, which performed on patients with COVID-19. The information required for the study was collected using patients' hospital records. The confirmed cases of COVID-19 in this study were patients who have clinical symptoms and positive result for COVID-19 Polymerase Chain Reaction (PCR) test, in Chaharmahal and Bakhtiari province during the first year of the disease. In this study, staying longer than 10 day was considered as long-term hospitalization. The association between age groups and duration of hospitalization for COVID-19 was evaluated with logistic regression model.

Results: In total, 5167 confirmed cases of COVID-19 were included in the study. The mean±SD, length of the hospitalization for patients was equal to 6.69±5.98 day. The minimum length of hospitalization was 1 and the maximum was 56 days. Compared to the age group 20- 29 years, the Odds Ratio(OR) of long-term hospitalization for the under 20 years age group was equal to 2.25(95% CI =1.04-4.91), for the 30-39 years age group was equal to 1.36(95% CI =0.74-2.62), for the 40-49 years age group was equal to 2.07(95% CI =1.17-3.88), for the 50-59 years age group was equal to 2.78(95% CI =1.61-5.11), for the 60-69 years age group was equal to 4.40(95% CI =2.58-7.97), for the 70-79 years age group was equal to 4.04(95% CI =2.36-7.38), and for the 80 and older was equal to 4.09(95% CI =2.38-7.48).

Conclusion: Compared to other age groups, smaller proportion of people in the 20-29 years age group require long-term hospitalization. Also, with increasing of the age, the

chances of long-term hospitalization in confirmed cases of COVID-19 increased significantly.

Keywords: Hospitalization; Long-term; COVID-19

Assessment of the Relationship between Age and In-hospital Case Fatality Rate of COVID-19

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Introduction/Goal of study: Coronavirus disease 2019 (COVID-19) causing serious respiratory illness such as pneumonia and lung failure was firstly reported in Wuhan city, the capital of Hubei, China. It first became an epidemic in China, but quickly became a global pandemic. So far, more than 149,910,744 new cases and 3,155,168 cases of deaths of COVID-19 registered in the worldwide; with the case fatality rate equal to 2.1%. However, it seems that the risk of mortality of the disease is not the same in all age groups. Therefore, this study was conducted with the aim to determine and compare the in-hospital case fatality rate (CFR) of the COVID-19 in different age groups.

Data and Methods: This study is a descriptive-analytical cross-sectional study, which performed on patients with COVID-19. Study conducted on the confirmed cases of COVID-19, in Chaharmahal and Bakhtiari province in Iran, in the first year of the disease occurrence (2019-2020). The information required for the study was collected using patients' hospital records. In this study, only in-hospital CFR was considered. The association between age groups and in-hospital mortality was evaluated with logistic regression model.

Results: In the first year of the COVID-19 occurrence in Chaharmahal and Bakhtiari province, 5167 in-hospital confirmed cases and 807 in-hospital deaths were recorded; in-hospital CFR was equal to 15.61%. The CFR of disease in the less than 20 years age group was 5.1%, in the age group 20-29 years was 1.96%, in the age group 30-39 years was 3.02%, in the age group 40-49 years was 6%, in the age group 50-59 years was 9.15%, in the age group 60-69 years was 16.32%, in the age group 70-79 years was 26.38%, and in the age group 80 years and older was 34.77%. Compared to the age group 20- 29 years(reference group), the Odds Ratio(OR) of in-hospital mortality for the under 20 years age group was equal to 2.69(95% CI =0.71-10.94;p.value=0.0844), for the 30-39 years age group was equal to 1.55(95% CI =0.54-5.42;p.value=0.3827), for the 40-49 years age group was equal to 3.21(95% CI =1.24-10.53 ;P.value=0.0105), for the 50-59 years age group was equal to 5.03(95% CI =2.03-16.11; ;p.value≤0.0001), for the 60-69 years age group was equal to 9.75(95% CI =4.03-30.72; ;p.value≤0.0001), for the 70-79 years age group was equal to 17.92(95% CI =7.41-56.33), and for the 80 years and older was equal to 26.65(95% CI =11.04-83.70; p.value≤0.0001).

Conclusion: The chance of death in people with the disease in the age group of 40-49 years and above is increasingly higher than other age groups. The risk of mortality from the disease increases with age. Therefore, special attention should be paid to the elderly in health care planning and provision of medical services to patients.

Key words: Case Fatality Rate; Mortality; COVID-19

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Evaluation of the Relationship between Some Demographic and Clinical Factors with the Length of Hospitalization in Patients with COVID-19

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Introduction/Goal of study: Coronavirus disease 2019 (COVID-19), is a viral disease that was observed as an epidemic in China in 2019. During 2020 and 2021, this disease spread to a large number of countries around the world; and now considered the most acute health problem worldwide. The aim of this study was to investigate the effect of some demographic and clinical factors on the length of hospitalization for confirmed cases of COVID-19.

Data and Methods: This research is a descriptive-analytical cross-sectional study, which conducted based on the information collected from electronic COVID-19 cases medical records, in the southwest of Iran in 2019-2020. In this study, staying longer than 10 days was considered as long-term hospitalization. The association between demographic and clinical characteristics with the length of hospitalization in patients with COVID-19 was evaluated with use of the Chi-square test.

Results: Of the total number of hospitalized patients who were diagnosed with the disease(5167 cases), 884 patients (17.1%) were hospitalized for more than 10 days and 4283 patients (82.89%) were hospitalized for 10 days or less. There was a statistically significant relationship between the length of hospitalization and the ward where the patient is admitted (p.value≤0.0001), history of cancer (P.value=0.012), diabetes (p.value≤0.0001), cardiovascular disease (P.value=0.003), and blood oxygen levels (p.value≤0.0001). But there was no statistically significant relationship between the length of hospitalization and gender (P.value=0.506), and smoking (P.value=0.2402).

Conclusion: People with underlying diseases such as diabetes mellitus, cancer, and cardiovascular disease are at higher risk for severe forms of the disease, resulting they need to be hospitalized longer. Also, patients who have low blood oxygen levels or need to be hospitalized in intensive care units due to a worsening of the disease, should also be hospitalized longer. Paying attention to prevention programs, especially in these groups, can lead to the prevention of their mortality and reduction in extra costs to the health care systems, governments, and the household budget.

Keywords: Hospitalization; Cardiovascular Disease; COVID-19

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Oxytocin as a Promising Treatment for Covid-19 Patients

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Background: COVID-19 pandemic has been emerged since 2019 and has affected all aspects of people's lives. Fortunately, vaccination has started in many countries. However, it takes time to achieve public immunization, and this period is a good opportunity for the SARS-CoV-2 virus to spread and cause infection. So patients with covid-19 need a treatment that is safe, effective, and accessible. In this regard, oxytocin can be a good candidate for the treatment of patients. Here we aim to review and discuss the therapeutic aspect of oxytocin and find out if OXT is a lost part of this puzzle.

Method: Scopus, PubMed, Science direct were searched with five keywords from 2019 up to April 2021. A total of 19 articles were selected based on our inclusion and exclusion criteria.

Discussion and Conclusion: OXT is a hormone that promotes uterine contraction and play role in the regulation of social behavior and stress reaction. Also, OXT plays an important role in the modulation of inflammatory response and stimulation of restorative mechanisms. Several animal studies have shown the anti-inflammatory and anti-oxidant mechanisms of OXT. Oxytocin suppresses the gene expression of nicotine amide adenine dinucleotide phosphate (NADPH) oxidase. This enzyme induces superoxide production then the formation of reactive oxygen species (ROS). So OXT decreases ROS production. Pulmonary arteries express oxytocin receptors and produce nitric oxide (NO) when stimulated by OXT. Increased levels of NO counteract with adherence of neutrophil to the endothelium and formation of platelet-neutrophil aggregates. Also mentioned that NO inhibits viral replication of SARS. OXT suppress Nf-KB signaling then decrease the number of pro-inflammatory macrophage and cytokines such as TNF-α. Several human studies support this feature of OXT. Intravenous injection of oxytocin blunt the response of several pro-inflammatory cytokines, including TNF- α. Another study has demonstrated the knockdown of oxytocin receptors in cultured human skin cells accompanied by an elevation of ROS level and an increased release of pro-inflammatory cytokines such as IL-6, CCL5, and CXCL10. Also, Oxytocin induces stimulation of mesenchymal stem cell and play role in tissue repairing. The adverse effect of OXT is cardiac arrest and hypertension but these side effects are rare. Due to the anti-inflammatory, anti-oxidant and restorative effect of OXT it can be a good treatment to reduce the disease period in hospitalized COVID-19 patients and promote better outcomes in patients.

Keywords: Oxytocin, Covid-19, SARS-CoV-2

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Association of Vitamin D Status with SARS-CoV-2 Infection or COVID-19 Severity: A Systematic Review and Meta-Analysis

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This systematic review was conducted to summarize and clarify the evidence on the association between 25-hydroxyvitamin-D [25(OH)D] concentrations and coronavirus disease 2019 (COVID-19) risk and outcomes. PubMed, Scopus, and Web of Science databases, and Google Scholar were searched up to 26 November 2020. All retrospective and prospective cohort, cross-sectional, case-control, and randomized controlled trialstudies that investigated the relation between 25(OH)D and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and COVID-19 severity were included. Thirty-nine studies were included in the current systematic review. In studies that were adjusted (OR: 1.77; 95% CI: 1.24, 2.53; I2: 44.2%) and nonadjusted for confounders (OR: 1.75; 95% CI: 1.44, 2.13; I2: 33.0%) there was a higher risk of SARS-CoV-2 infection in the vitamin D deficiency (VDD) group. Fifteen studies evaluated associations between VDD and composite severity. In the studies that were adjusted (OR: 2.57; 95% CI: 1.65, 4.01; I2 = 0.0%) and nonadjusted for confounders (OR: 10.61; 95% CI: 2.07, 54.23; I2 = 90.8%) there was a higher severity in the VDD group. Analysis of studies with crude OR (OR: 2.62; 95% CI: 1.13, 6.05; I2: 47.9%), and adjusted studies that used the Cox survival method (HR: 2.35; 95% CI: 1.22, 4.52; I2: 84%) indicated a significant association of VDD with mortality, while in adjusted studies that used logistic regression, no relation was observed (OR: 1.05; 95% CI: 0.63, 1.75; I2: 76.6%). The results of studies that examined relations between VDD and intensive care unit (ICU) admission, pulmonary complications, hospitalization, and inflammation were inconsistent. In conclusion, although studies were heterogeneous in methodological and statistical approach, most of them indicated a significant relation between 25(OH)D and SARS-CoV-2 infection, COVID-19 composite severity, and mortality. With regard to infection, caution should be taken in interpreting the results, due to inherent study limitations. For ICU admission, inflammation, hospitalization, and pulmonary involvement, the evidence is currently inconsistent and insufficient.

Keywords: COVID-19, Vitamin D, Severity, Infection, SARS-CoV-2

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Covid19 Incidence among Non Hematologic Cancer Patients in Tehran: A Cross Sectional Study

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Covid19, caused by the SARS COV2 virus, first emerged in Wuhan china in the late 2019, developing into a pandemic by March2020.Manifesting with a range of Respiratory, gastrointestinal, neurological and vascular symptoms, it is typically presented with fever, dyspnea, cough, and fatigue. With droplets being the main route of transmission; social distancing, adequate face covering, and frequent hand washing are the most effective protective measures.

Preexisting medical conditions (ie : Diabetes mellitus, Hypertension, chronic respiratory illness and cardiovascular disease) , immunosuppressive state and old age are the main factors leading to a higher risk of infection and cancer patients, are theoretically more susceptible to covid19, as a result of the immunosuppression due to the malignancy and the anticancer treatments they go through(ie: Chemotherapy, Radiotherapy, Immunotherapy).On the other hand older age in most cancer patients and the range of chronic illnesses which are common in this age group, can also make them more at risk of the SARS cov2 infection.

In this cross sectional study, we have determined the incidence rate of covid19 amongst 863 cancer patients with non hematologic malignancies, undergoing chemotherapy in the settings of Tehran and Bouali hospitals of Tehran from February to December 2020.

Before the initiation of Chemotherapy, patients were primarily screened for any signs or symptoms of the disease or a history of coming in contact with a covid19 patient within the last 14 days, with help of a questionnaire. Moreover the level of blood O2 saturation and body temperature was measured as a part of the screening process. patients with any indicators of infection would be referred to the infectious disease clinic for closer assessment. Chest ct scan and a PCR test were also performed to further make the diagnosis. Those with no evidence of infection were admitted to the Oncology unit, subsequently entering our study.

Our data demonstrated that among this patient population with an average of 54.39 years of age, incidence rate of Covid19 was 1.62% with 14 cases of infection and 50% mortality rate among these positive cases.

It was concluded that the incidence rate of Covid19 in this patient population did not make a

considerable difference from the normal population. Nevertheless, old age along with preexisting medical conditions, puts patients at a higher risk of infection. It is also inferred that the screening methods utilized in this study, proved to be efficient in the state of a pandemic and equipment shortage.

Keywords: Covid-19, Cancer

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Thrombotic Complications in Covid-19 Patients

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SARS-CoV-2 outbreak has attracted the world's attention as an emergency medical condition due to its complications. Thrombosis is one of the life-threatening complications of covid_19 infection. Although thrombosis has commonly reported as deep vein thrombosis (DVT) and pulmonary emboli (PE) in patients it would cause vessel occlusion in other organs with different clinical manifestations. Timely identification of these symptoms prevents ischemia, necrosis, and organ loss. Recent studies commonly discussing manifestations, diagnosis, and management of DVT and PE.systemic evaluation of thrombosis in various organs is rare. Now we investigate to discuss case reports with confirmed thrombosis in different sites such as lung, brain, heart, kidney, retina, liver, spleen, intestine, upper and lower extremities, ovaries, gonads, and adrenal. A meta-analysis that was conducted on 27 studies with 3342 patients reported PE and DVT as the most common thromboembolic events in covid19 with the incidence rate of 16.5% and 14.8% respectively. Another complication of thrombosis formation was found in the cerebral venous sinus as a study reported a series of 3 confirmed covid_19 patients who developed the thrombotic condition in the range of 2-7 days after onset of covid-19 symptoms. Another case report presented a 60-year male without any cardiac history with a massive thrombosis in the right dominant coronary artery without any evidence of atherosclerosis. Also, there is some evidence of thrombosis formation in the kidney. A study notified a case of covid_19 patient with a complaint of flank pain that was ultimately diagnosed with left renal artery thrombi and left kidney infarction. Furthermore, a study reported a case of a 17-year-old female with a history of recent covid-19 infection and decreased eye vision 2 days before admission. Splanchnic vein thrombosis (SVT) defined as thrombi in the portal, mesenteric or splenic vein, and Budd_chiari syndrome was discussed in a study that found six cases of covid19_ patients with the median age of 58-year old that their CT showed thrombosis formation in splanchnic vein. In line with this study, another paper discussed a man with a history of epigastric abdominal pain that his CT showed an extensive portal vein thrombosis. In this regard superior mesenteric occlusion and bowel infarction also was reported in a man with a positive test for covid19 that his CT scan of the abdomen showed a clot in the sup mesenteric artery. Besides, ovarian vein thrombosis has been reported following covid 19 infections in a woman with abdominal pain. Another case_report study accounted for isolated radial vein thrombosis in an ultrasonogram of a 56-year-old man with no significant past medical history but confirmed covid 19 infections by both CT and PCR test. Another study noticed adrenal infarction following covid-19 infection in a 70 year_old female with the evidence of poor enhancement in adrenal glands in her CT although they found no thrombi recent studies all suggested that microvascular thrombi in adrenal parenchyma are the main mechanism leading to adrenal infarction. More information will be provided in full_text.

Keywords: Thrombosis, Covid_19

GBS/MFS Overlap Syndrome in a Patient after COVID-19 Infection:
A Case Report

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Background: Beyond the typical respiratory symptoms associated with novel coronavirus, increasing evidence has been reported of the neurological manifestations affecting both the central and peripheral nervous system.

Case presentation: We observed a 30-year-old woman developing acute motor-sensory axonal neuropathy, a variant of Guillain–Barré syndrome (GBS) overlaps Miller Fisher syndrome (MFS), 30 days after confirmed Corona Virus disease 2019 (COVID-19) infection. Our case highlight the rare occurrence of GBS overlap MFS during the COVID-19 pandemic. These neurologic manifestations may occur because of an aberrant immune response to COVID-19 .

Conclusions: The early recognition of GBS symptoms is critical, given the associated severe motor disabilities that may seriously limit the quality of life of these patients. We may still have much to learn about the GBS and FHS co-occurrence to improve the quality of life of these patients requiring an accurate evaluation by the neurologists.

Keywords: GBS Syndrome; COVID-19, Infection

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Evaluation of Health Literacy Status of Pregnant Mothers in the Field of Prenatal and Lactation Care during the Pandemic

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Introduction: Covid-19 is one of the most important challenges of the last century. Therefore, the present study was conducted to determine the health literacy status of pregnant mothers in the field of Covid-19 disease and the necessary care of the baby with Covid-19.

Materials and Methods: In this cross-sectional descriptive study, the health literacy questionnaire of pregnant mothers in the field of prenatal care and lactation during the Covid -19 pandemic was performed. After designing the researcher-made questionnaire and conducting its validity and reliability, the questionnaire was started. The questionnaire was conducted in cyberspace and completely voluntarily. Data were analyzed using SPSS software version 16.

Results: According to the findings, 150 pregnant women were included in the study whose health literacy in the field of pregnancy care during the pandemic Covid -19 was moderate and also their health literacy in the field of breastfeeding during the pandemic of Covid -19 was reported to be low.

Conclusion: Considering that the level of health literacy of pregnant mothers in the field of pregnancy care during the pandemic of Covid-19 is moderate and in the field of poor breastfeeding has been reported, therefore it is necessary to take the necessary educational measures and interventions in this field.

Keywords: Covid-19, Pregnant Mother, Health literacy

covid19-03000300

Investigation of the Mediating Role of Early Maladaptive Schemas in Relationship between Overall Attitudes toward Disease and Perceived Stress Associated with COVID-19 in Adults

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Aim: The aim of this study was to investigate the mediating role of early maladaptive schemas in the relationship between general attitudes toward disease and perceived stress associated with COVID-19 disease in adults.

Method: The research method is cross-correlation and structural equations. The statistical population includes all adults over 18 years of age in 1399 that 154 people were selected by random sampling. In order to collect information, three questionnaires were used, including the Young Schema Questionnaire (Short Form) and the Irrational Believes Test (IAS) and the Kohen Perceived Stress Scale, and individuals answered the questions online. The proposed model was evaluated by structural equation modeling method using AMOS 18.0 software.

Results: The proposed model had a good fit. The effect of disease feedback on the schema is significant and also the effect of disease feedback on disease stress is significant and the effect of early maladaptive schemas as a mediating factor on perceived stress is significant compared to COVID-19.

Conclusion: The results of the present study showed that people with early maladaptive schemas have more anxiety and are more prepared to experience stress associated with COVID-19 disease and early maladaptive schemas play a mediating role.

Keywords: COVID-19 disease, early maladaptive schemas, general attitudes toward disease, stress

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Evaluation of Outpatient, Inpatient and Mortality Referral patterns in children referred to Hazrat Masoumeh Hospital in Qom in Covid 19 pandemic in 1399 and compared with three years ago

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Covid 19 disease, which is caused by the Acute Respiratory Syndrome Virus [1], has become a global epidemic threat. Due to the change in the hospitalization pattern, it is necessary to conduct a study in order to provide a program appropriate to the above conditions to allocate the necessary equipment and drugs to reduce costs, to use appropriate treatment staff with patients in each ward to reduce manpower burnout. In the past, with the outbreak of the flu, children's hospitals were overcrowded, which can be investigated with the prevailing conditions.

This retrospective study was performed in Hazrat Masoumeh Children's Hospital in Qom in a descriptive-analytical manner [2]. The variables considered in this study are the "number of hospitalized patients", "emergency department visits", "clinic visits", "influenza sampling", "patients with flu diagnosis" in March of 1398-99, which is compared with the same period in 1397-98 and 1396-97 cases has taken.

The results showed that from March 1398 to March 1399, compared to the same period of 1396-97 and 1397-98, "emergency department visits" were decreased significantly by 64.91% & 68.57% (p).

Keywords: SARS-COV2, Influenza, Children

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Diagnostic Accuracy of CT-Scan and Point-of-care Lung Utrasound (POCUS) in COVID-19

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Objective: One of the most important ways to control the disease and, consequently, the covid-19 pandemic is the rapid identification and timely treatment of patients. The gold standard test for diagnosing this disease is RT-PCR. However, due to the fact that a large number of patients have no symptoms in the early stages and also in developing countries do not have the necessary infrastructure to perform this test in a timely and sufficient manner, so CT scan of the chest and especially point-of-care ultrasound (POCUS) of the lungs can be used as a Appropriate screening tools to diagnose patients with Covid-19 Therefore, this study was designed and performed to study the diagnostic accuracy of CT-SCAN and POCUS of the lungs with Covid 19 between November 21 and December 20, 2020 in Hazrat Ali Hospital in Karaj city of iran.

Method: Sensitivity, specificity, positive and negative predictive value, positive and negative likelihood ratio, Pre-test probability, Positive post-test probability,Negative post-test probability,and accuracy of CT Scan and POCUS were compared with gold standard RT-PCR test in all patients and also in mild , Moderate and severe patients .

Results: Sensitivity, specificity, positive and negative predictive value, positive and

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negative likelihood ratio, Pre-test probability, Positive post-test probability,Negative post-test probability,and accuracy of CT scan in all over were 100%, 70.58%, 79.31%, 100%, 3.4 , 0 , and 86.1% respectively. for POCUS this indics were 100% , 83% , 86.9% , 100%, 5.8 , 0 , 53% , 86.9% , 0 , and 92% respectively.

Conclusion: Due to the fact that the covid 19 pandemic is not over yet, according to the appropriate diagnostic accuracy of CT scan and POCUS in the diagnosis of covid-19 , these methods can be used to diagnose the disease. The use of these methods is especially important in developing countries. On the other hand, the use of POCUS is recommended to more due to the limitations and disadvantages of CT scan.

Keywords: Diagnostic Accuracy, Sensitivity, Spesiphity, Covid-19

Nanomaterial-based Approaches to Detect Covid-19

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Recently, the world faced a global threating and rapidly spread virus disease (COVID-19) resulted from a novel corona virus (sever acute respiratory syndrome corona virus 2; SARS-CoV-2). Owing to rapid transmission and severity of disease, WHO refers to it as a global pandemic. The symptoms of the disease include dry cough, fever, sudden loss of smell, body ache, and, in more cases, short of breath. The absence of effective vaccines and antiviral drugs give rise to a crying need for precise diagnostic tools in order to screening and early detection of patients that would be beneficial for preventing its spread, saving patients lives and improving healthcare outcomes. To this aim, a huge number of techniques such as reverse transcription-polymerase chain reaction (RT-PCR), real-time isothermal loop-mediated amplification, (RT-LAMP), full genome analysis by next-generation sequencing, clustered regularly interspaced short palindromic repeats technique and microarray-based assays, enzyme-linked immunosorbent assay (ELISA) have developed. Reverse transcription-polymerase chain reaction (RT-PCR) is commonly regarded as a gold standard test for detecting the presence of COVID-19. However, conventional technologies for the detection of CTCs suffer from some serious limitations including high cost, time-consuming, low efficiency and sensitivity, non-specificity, false positive/negative response, requiring various equipment and educated analysts. As such, what is now needed is overcoming the shortcoming of the current technologies by developing rapid, sensitive and low cost approaches for the detection of viruses and diagnosis of related viral infections. Today, most studies in the medical field such as diagnosis, treatment, control and prevention of disease focus on nanotechnology and biotechnology methods. Nanotechnology is defined as the branch of science concerned with design and making use of materials and devices in which at least one dimension is less than 100 nanometers. Viruses have simple biological structure and extremely small size in the nanometer range. Nanomaterials by virtue of their unique properties like small size, large surface–to-volume, improved solubility, surface adaptability and multifunctionality, very small samples and reagents, cost-effectiveness have paved the way for management of pathogenic viruses. A variety of nanomaterials including metallic nanoparticles (e.g., gold or silver NPs), graphene, graphene oxide, zinc oxide, quantum dots, polymeric nanomaterials, nanocomposites, and carbon nanotubes could be used to detect coronavirus. Preparing these virus detection systems can be achieved by the modification of nanomaterials surface with virus –derived bio receptors such as DNA, RNA, antibody, and aptamer. As was mentioned above, nanomaterials due to large surface

to volume ratio can result in improving interaction between bioreceptor and virus and increasing detection limit. Hence, it seems that nanomaterial-based approaches due to advantages of simplicity, fast and real time response, and cost-effectiveness can be used instead of current methods for detecting COVID-19.

Keywords: Coronavirus, Detection, Nanomaterials

covid19-03260324

COVID-19 and Vertical Transmission in Pregnant Women
(A Systematic Review)

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Background: The coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2(SARS-CoV-2), was first reported in Wuhan, Hubei province in China in December 2019. disease has spread rapidly worldwide and is now a global pandemic. Common symptoms of disease are fewer, cough, shortness of breath, chest pain and myalgia. The most common way of transmitting the disease is through respiratory droplets. Our major concern is about mother-fetal transmission COVID-19 because of the fetuses may be at risk of congenital COVID-19. Aim of this study investigated vertical transmission of COVID-19 from suspected and infected COVID-19 mothers.

Search method: We searched articles in the PubMed, Google Scholar and Science Direct databases between 2020 to April 2021. About 25 articles were found; of these, 20 articles related to our study that were investigated.

Results: According to studies, infection with COVID-19 during pregnancy can cause complications for both the mother and the fetus; including preterm delivery, fetal distress, respiratory distress and death of the mother. Based on the findings of the recent study in china, the clinical manifestations in pregnant women with positive COVID-19 are similar to non-pregnant women infected with COVID-19. These symptoms including cough, fewer, shortness of breath and myalgia. One study in china shows 9 newborns from infected mothers with COVID-19, did not a course of symptoms of disease, CT features and postpartum complications such as fetal distress. Also, the reported result of rt-PCR test from neonatal swab, cord blood sample and amniotic fluid was negative. Despite this; A case of rt-PCR positive has been reported in China 36 hours after birth in a newborn that vertical transmission of coronavirus cannot be confirmed due to negative rt-PCR swap test results and cord blood sample and amniotic fluid reports. however, Recommended infected or suspected mothers with COVID-19 should be carefully monitored before and after delivery and also they should avoid breastfeeding. Also, Mothers and their neonates should be taken care of in isolated rooms in order to prevent neonatal transmission.

Conclusion: Based on currently available data, there is no evidence for vertical transmission of COVID-19 from suspected or infected mothers with COVID-19 and the

maternal, fetal and neonatal outcomes observed in pregnancy appear good in most cases. However; Recommended infected or suspected mothers with COVID-19 should be carefully monitored and should be treated with antibiotics and antiviral drugs after childbirth. Also, Mothers and their neonates should be taken care of in isolated rooms. Furthermore, Long-term outcomes and intrauterine vertical transmission need further analysis and research.

Keywords: COVID-19, Pregnancy, Vertical Transmission

covid19-03270352

Effective Communication: The Students' Essential Need in the Formation of Student Identity in Virtual Education: A Qualitative Study

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Background and Aim: Student identity is one of the most important layers of identity. With a stronger student identity, the students perform their duties and roles better and more effectively. Due to the epidemic of Covid-19 and the virtualization of education in universities and the lack of students referring to the university, it is feared that the student identity in virtual education will be damaged, and it is necessary to identify the effective factors. Therefore, this study was conducted to explain students' perceptions of their needs in the formation of student identity in virtual education.

Materials and methods: The present study was conducted with a qualitative approach and content analysis method. 17 students from different universities were selected as participants. In this research, data collection started by purposeful sampling and continued until data saturation. Research data were collected from interviews and field notes. All interviews were recorded and then handwritten verbatim.

Result: From the 254 primary codes obtained, four categories including academic interactions, student communication, educational motivation, and computer skills were extracted by data analysis. The common theme of the classes was effective communication identified as the students' essential need.

Discussion and Conclusion: Findings showed that students have many needs to form a student identity in virtual education. First, their recognition and understanding by professors and policymakers of higher education, and second, the necessity for proper interaction and effective communication with students by the university is of particular importance.

Keywords: Effective Communication. Student Identity. Virtual Education

covid19-03310325

Traffic Illegal Cross-border:
The Cause of the Spread of the Corona Virus

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Background and Aim: Covid19 pandemic is spreading in Iran and the world. One of the points that has always been associated with the transmission of diseases is the borders between countries. However, due to the geographical, climatic, infrastructural and economic situation of the southeastern borders of the country, some people also travel from illegal sources, which has increased the possibility of spreading infectious diseases, especially corona virus disease in Sistan and Baluchestan province. The aim of this study was to determine the role of illegal border crossings in the spread of the corona pandemic.

Materials and Methods: This qualitative research study with applied purpose was conducted in 2021. The study population included health care providers located in the border quarantine post, affiliated to the health department of Zahedan University of Medical Sciences. In this study, 15 participants were included in the study by purposive sampling. Sampling was continued until data saturation. After Data collection and informed consent, data were collected using a semi-structured interview guide and adherence to health protocols. All interviews were transcribed and reviewed and content analysis method was used to analyze the data.

Results: After analyzing the interviews, 6 main themes and 19 sub-themes were extracted ("no use of self-protective equipment", "failure to perform coronary screening test", "concealment of disease", "non-observance of quarantine" "Economic problems", "Human trafficking"

Conclusion: Illegal border traffic can affect security, economy, culture, health, social and economic status. Adherence to sanitary practices, identification of unauthorized sites and their control, identification, training and continuous screening of persons with unauthorized cross-border traffic, is recommended to prevent coronary heart disease and other infectious diseases. This requires a serious look at security and health authorities and policy makers.

Keywords: Border Exchanges, Corona, Quarantine

covid19-03330328

Mental Disorders Caused by Covid-19 Pandemic in the Healthcare Staff: A Brief Review Study

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Introduction: The Healthcare staff is at the frontline of treatment and care for patients with Covid-19. This pandemic is an important source of stress that puts the Healthcare staff at greater risk of mental disorders than the general population. Therefore, the purpose of designing this study was to investigate mental disorders caused by Covid-19 in the Healthcare staff.

Method: The present study was a brief review study designed in 2021. PubMed / Medline, Google scholar and Scopus databases were used to search for similar studies and extract content. Selected keywords for the search included "COVID-19", "healthcare staff" and "mental disorder". The articles were retrieved using advanced search and using AND operator. The one researcher examined the extracted articles and included Latin articles on the mental disorders caused by Covid-19 pandemic in the Healthcare staff. Summaries of articles published in congresses and conferences were excluded from the study. Initially, 12 articles were finally evaluated.

Results: From the review of the articles included in the study, 10 mental disorders caused by Covid-19 were extracted in the Healthcare staff, which are as follows: Stress, anxiety, depression and post-traumatic stress disorder have been reported as the most common mental disorders in the Healthcare staff. In addition, some studies have reported fear, irritability, feelings of inefficiency, anhedonia, suicidal ideation, and sleep disorders.

Conclusion: The most common mental disorders in the Healthcare staff are stress, anxiety, depression and post-traumatic stress disorder. Due to the severe effects of Covid-19 on the mental health of Healthcare staff and its effects on the quality of their performance in patient care, maintaining and promoting the health of these people is very important. Therefore, to strengthen the resilience of the Healthcare staff, preventive strategies such as adequate sleep and rest, exercise, Education on issues related to preventing the transmission of viruses and personal protective equipment are suggested. It is also necessary for psychologists to provide emotional support to the Healthcare staff.

Keywords: Mental Disorders, Covid-19, Healthcare Staff

covid19-03360353

Relationship between Quality of Work Life and Job Stress of Nurses Working in Shahid Rajaei Hospital in Karaj,in the First Peak of Coronavirus Pandemic

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Introduction: At the time of the critical outbreak of a disease, the number of people suffering from psychological trauma More than the number of people who suffer physical injuries caused by that disease. Considering that human is a psychological, biological and social being, the lack of stressors in a person's work environment is one of his basic needs. Every profession ,creates a degree of stress for employees But the nursing profession, due to the nature of its care, is one of the jobs with high job stress. Quality of work life of nurses plays an important role in providing quality nursing care and improving their performance. The aim of this study was to investigate the relationship between nurses' job stress and their quality of work life.

Method :This descriptive-analytical study was performed on 80 staff of Shahid Rajaei Hospital in Karaj in first peak of coronavirus pandemic in 2020. To assess job stress from Esipo job stress questionnaire and to assess the quality of life, the professional quality of life questionnaire Which consists of three dimensions of fatigue from compassion, burnout and secondary traumatic stress, used. SPSS16 software and descriptive and inferential tests and Pearson test were used to analyze the data.

Finding: The mean age of study participants was 35.53 ± 7.75 and 66.4% of them were women.42.5% work in intensive care unit and Education of 57.5% of participants was bachelors. Job stress and all aspects of quality of life were reported as average and There was a significant relationship between job stress and all these dimensions ($p.value < 0.05$)

Discussion: Findings showed that increasing job stress of nurses has a negative effect on the dimensions of their quality of life, Therefore, nursing managers with the help of the results of this study, by establishing the correct relationship with nurses and their support to reduce psychological stress and their participation in decision making to reduce job stress which consequently increases the quality of work and quality of life of nurses.

Keywords: Job stress, Quality of work life, Corona virus

covid19-03370344

Investigation of Handwashing Status and Related Factors in the COVID-19 Prevention in the People of Qom, Iran: Using Protection Motivation Theory

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Introduction: At the end of February 2020, the first case of Covid-19 in Iran was identified in Qom and after that it became widespread in most cities. Due to its unknowingness and lack of definitive treatment, it led to the death of a large number of compatriots. Meanwhile, breaking the transmission chain was announced as the only way to prevent and control this disease. Recognizing the factors which affect people's health behavior and modifying it, such as wearing a mask and handwashing, can help reduce COVID-19 transmission. The use of patterns and change behavior theories helps to identify individual characteristics and their environment in which somehow affect behaviors. Therefore, the present study aims to investigate the status of handwashing and related factors based on protection motivation theory in the people of Qom during the COVID-19 epidemic.

Method :In this cross-sectional study that was conducted in the April 2020 in the first period of the COVID-19 epidemic, sampling was done by relative classification method and a total of 320 eligible individuals were participated in the study. Inclusion criteria included living in Qom, literacy and voluntary consent to participate in the study. The data collection tool had two parts: demographic questionnaire and researcher-made questionnaire based on protection motivation theory. The validity of the questionnaire was determined through content validity and using the comments obtained from the professionals' panel. The reliability of the questionnaire was assessed by calculating Cronbach's alpha or retest test. During the implementation phase, the questioner was

presented in crowded gathering places and data was collected. Finally, the data were analyzed by SPSS 18 software using statistical tests.

Findings: In the present study, 126 men and 194 women participated and the rate of handwashing in women was significantly higher than men. 210 people (65%) from the target population always do handwashing and 83 people (26%) do handwashing often. 19 people (6%) do sometimes and 7 people (2%) never do handwashing. Furthermore, a significant relationship was observed between handwashing and constructs including the protection motivation, the perceived susceptibility, the perceived self-efficacy, the response costs and the response efficiency.

Discussion: People who were more motivated to protect their health and considered themselves more vulnerable and were more confident in their ability to perform health behavior and paid less attention to the cost of handwashing and considered their behavior effective, were more careful with handwashing.

Therefore, it is necessary to provide the essential training for people in this regard, relying on these structures.

Keywords: Handwashing, Protection Motivation Theory, COVID-19

covid19-03420346

Clinical Features of COVID-19 Infection in Children:
A Systematic Review and Meta-Analysis

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This study aims to analyze COVID- 19 in children by summarizing the clinical in recent observational studies. This systematic review was conducted, using Medline/PubMed, Scopus, Web of Sciences, and Google Scholar, to identify studies published on COVID-19 following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The keywords used to search the studies were: ''Novel Coronavirus'', ''Novel Coronavirus 2019'', ''2019 nCoV'', ''COVID- 19'', ''Wuhan Coronavirus'', ''Wuhan Pneumonia'', and ''SARS-CoV- 2'', up to April 14, 2020. A total of 569 articles were initially retrieved and 32 articles were finally selected for full-text assessment. The meta-analysis was performed using Stata software version 14 (StataCorp. 2015, Stata Statistical Software: Release 14, College Station, TX). Heterogeneity was assessed with the Q test and quantified numerically using the I2 index. For I2 < 50%, i.e., non-heterogeneity, a fixed-effects model was applied; otherwise, a random-effects model was used with the estimate of heterogeneity being taken from an inverse-variance model. Out of the 32 publications, three were performed in Iran, the United States, and Spain and the other 29 studies were conducted by Chinese researchers. The total sample size consisted of 759 children, of whom 399 were male. However, several clinical symptoms were reported in different studies; the most frequent symptoms were fever, cough, vomiting, diarrhea, sore throat, and dyspnea. Regarding the clinical manifestations, fever (46%, 95% CI 40–53%), cough (37%, 95% CI 29–46%), diarrhea (19%, 95% CI 9–28%), and pharyngalgia (13%, 95% CI 5–20%) were the most commonly reported symptom in children. This review study showed that clinical presentations were milder, the prognosis was better, and the mortality rate was lower in children with COVID-19 compared with adult patients; however, children are potential carriers, like adults, and can transmit the infection among the population. Therefore, early identification and intervention in pediatric patients with COVID- 19 are essential to control the pandemic. Moreover, gastrointestinal symptoms were more common symptoms among children.

Keywords: Coronavirus, Children, Clinical Symptom

http://covid19.zums.ac.ir

The role of spirituality and Spiritual Care during the Covid-19 Pandemic - Systemic Review

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Introduction: The coronavirus pandemic has been the main crisis of healthcare systems over the last century. The unknown nature of the virus, and the lack of definitive vaccine or treatment protocol have made it difficult to manage the crisis, leading to emotional, social, and economic consequences. The evidence show that religiosity and spirituality are highly used in critical moments of life, and such care is an integral part of daily health cares and in life. This study aimed to investigate the role of spirituality and spiritual care during COVID-19 pandemic.

Method: This study was a regular and systematic review studying Persian and English articles. The search was performed in national and international ISI databases, PubMed, Science Direct, Springer, Google Scholar, SID, Irandoc, and Magiran, using keywords of "spirituality", "spiritual care", "COVID pandemic", "COVID-19", "Religions" and "Spirituality care".

Results: A total number of 18 articles were investigated. The findings showed that spiritual beliefs affect mental and physical health and reduce the risk of diseases. Low spiritual level, females, non-physicians, and the history of anxiety background increased fear and anxiety related to COVID-19. Moreover, adaptation with the disease and having spiritual care had significant statistical relationship with metal health and quality in life during this pandemic. Respect to patients' spiritual beliefs, ability to start and continue a spirituality-based conversation with patients, the ability to use spiritual solutions (praying) to help the patients feel peace and calm, use of the belief in healing and recovery of the patients and identifying the patients' spiritual criteria can be mentioned as strategies to find ways to respond the patients' individual and spiritual needs.

Conclusion: Spirituality plays an important role in relieving pains from COVID-19 and minimizing the consequences of social distance. It can be a useful sedative for humans. It also has positive effects on resilience, thinking positive, peace, and reduced anxiety.

Keywords: Spirituality, Spiritual Care, COVID-19

covid19-03550356

The Assessment of the General Mental Health Status, Resilience and Spiritual Intelligence in Nurses Working with COVID-19 Patients in Iran

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The Coronavirus disease 2019 (COVID-19) is a contagious disease and it is a threat for physical and mental healthiness in all over world, especially in individuals working with COVID-19 patients. Studies have investigated some psychological parameters in health workers with COVID-19 patients, but the relation between mental health status, resilience and spiritual intelligence in nurses working with COVID-19 patients is unknown. This study was conducted to evaluate mental health status, resilience and spiritual intelligence in nurses working with COVID-19 patients in Iran. In this descriptive study, 95 nurses working with COVID-19 patients for more 4 weeks were studied. The general health questionnaire, the Connor-Davidson Resilience scale, and the Integrated Spiritual Intelligence questionnaire were used to investigate the mental health status, resilience and spiritual intelligence. The mean of age was 32.81 ± 5.72 years and mean duration of their presence in COVID-19 part was 57.6 ± 1.66 weeks. The results also showed that the means for mental health status, resilience and spiritual intelligence were 35.46 ± 11.48, 48.78 ± 17.18 and 176.28 ± 18.48, respectively. The results showed a significant relation between resilience and intelligence (P0.05) and time presence ($P>0.05$) with other variables ($P>0.05$) and also between working in different units with psychological parameters ($P>0.05$). In sum, spiritual intelligence has a positive relation with resilience and mental healthiness. Training spiritual intelligence can improve resilience and mental healthiness in nurses working with COVID-19 patients. We suggest training spiritual intelligence for improving resilience and mental healthiness in nurses working with COVID-19 patients.

Keywords: COVID-19, Mental healthiness, Nurses, Psychological parameters, Spiritual Intelligence

covid19-03560361

COVID-19 and Public Mental Health

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The COVID-19 disease has had a many effect on humans live and has challenged them. For many people, these challenges have been overwhelming affecting their mental health. Public health action, such as social distance, can make feel isolated and lonely and can increase stress and anxiety. Emerging data also show that people with schizophrenia and other serious mental illnesses have also been hard hit by this pandemic. Public health mental is very important and its effects can last for years after the pandemic. Therefore, strategies should be taken to reduce stress, depression such as physical activities and sport, avoiding false and stressful news.

Keywords: Mental Health, COVID-19 Disease

covid19-03580358

Experiences of ICU Nurses Caring for Patients with COVID-19 of Psychological Distress: A Qualitative Study

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Background: Caring for patients with Covid 19 due to the lesser known nature and high mortality associated with this disease, can disturb the mental health of nurses, especially nurses working in ICU for COVID-19 patients. Identifying issues related to psychological distress can play an important role in designing psychological interventions for psychological support of nurses.

Objectives: Therefore, the present study aimed to explore the experiences of ICU nurses of psychological distress in the care of patients with Covid-19.

Materials and Methods: The present study was qualitative and descriptive. Nine in-depth and semi-structured interviews were conducted with nurses working in intensive care units caring for patients with COVID-19. Interviews continued until data saturation was reached. After conducting the interviews, conventional qualitative content analysis was performed using Maxqda software version 10.

Results: Content analysis of qualitative data revealed 3 main categories, including 1. Stresses related to family relationships, 2. Stresses related to the changing and unknown status of the patient and his family, and 3. Psychological outcomes related to personal protective equipment. The subcategories of first category included role stress and fear of disease transmission to the family. The subcategories related to the second category included the unknown nature of the disease, high and sudden mortality, especially in young patients, giving bad news to the patient's family, and feelings of helplessness associated to help the COVID-19 patients. The subcategories related to the third category included a lack of personal protective equipment and fatigue associated with prolonged use of personal protective equipment.

Conclusion: are at risk of physical and mental consequences directly as the result of providing care to patients with COVID-19.

Keywords: Experience, COVID-19, Psychological Distress

covid19-03590360

Does Mental Health Status of Health Care Professionals during the Covid-19 Outbreak Matter? Evidence from Qazvin Province, Iran

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Introduction: During the COVID-19 pandemic, the greatest pressure to fight the coronavirus is on health care workers, which can put them under severe psychological pressure. This study was conducted to examine the mental health status of health care workers fighting COVID-19 in Qazvin province, Iran.

Methods: The present study was a cross-sectional study conducted in August and September 2020. A total of 576 health workers aged 18 to 59 years from two hospitals and one emergency medical center in Qazvin province participated in the study. The SCL-90-R was used to assess the mental status of the participants and the results were analyzed using Student's t-test, one-way analysis of variance (ANOVA), LSD and Scheffe post hoc test.

Results: In overall, participants including physician (5.2%), nurse (59.2%), paraclinic employee (14.2%), psychologist (0.9%), health expert (1.4%), administrative officer (11.8%), and service employee (12.5%) reported high scores in Global Severity Index (GSI) (0.76±0.65) which was higher than the cutoff point (0.7) in Iran. About 12 percent of them had symptoms of severe anxiety or depression, and 13 to 16 percent of participants reported severe symptoms of obsessive-compulsive, somatization, and paranoid ideation. LSD and Scheffe post hoc test showed that all SCL-90-R item-scores of nurses except the PAR (p=.094), PSY (p=.564), and SOM (p=.068) were higher than other occupational groups. Accordingly, independent-samples t-test indicated that women scored significantly higher in almost all indices and dimensions than men except PST (p=.960) and PSDI (p=.111).

Conclusions: Findings of this study support planning urgent psychological interventions for health care workers during and after the Coronavirus pandemic in Qazvin province.

Keywords: Medical Workforce; Mental Health; Coronavirus Pandemic

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