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Covid-19 Vaccination of Children

COVID-19 Patients Treated with Remdesivir

Highlights

Article on Various Ayuvedic Approaches

Qualitative Study in a Province in Sri Lanka

Discovering Thoughts, Inventing Future

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Contents of the Issue

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Outcome Assessment in Case of Severe COVID-19 Patients Treated with Remdesivir

By Dr. Shailendranath Biswas, Dr. S K Ballav, Dr. Sheikh Farid Uddin Ahmed, Dr. Utpal Kumar Chanda, Dr. Tahmida Khanom, Dr. Mohaiminul Haque, Dr. Ripon Roy & Dr. Avijit Kumar Mridha

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Abstract- *Background:* A sudden outbreak of a novel coronavirus disease (covid-19) pandemic has thrown challenges in searching out a truly effective drug or vaccine to minimize the heavy toll of mortality and morbidity worldwide. But still, now humanity is lagging in finding such an agent that can be labelled as absolutely efficacious.

Methods: We conducted a prospective observational cohorttrial of injectable Remdesivir in the case of hospitalized patients presenting with features of respiratory tract infection and diagnosed as COVID-19 pneumonia by RT-PCR for COVID-19 test and categorized as severe COVID-19 cases as per national guidelines criteria. Patients were treated with injectable Remdesivir (200mg on day 1, followed by 100 mg daily for up to 05 additional days) along with other standard treatment protocols. The primary outcome of the study was the time to recovery, defined by improvement in clinical and laboratory parameters whether discharge from the hospital or not (hospitalization for infection-control purposes only).

Keywords: *SARS-CoV-2, oximetry, mechanical ventilation, radiological improvement.*

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Outcome Assessment in Case of Severe COVID-19 Patients Treated with Remdesivir

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Results: We enrolled a total of 53 patients in this study who fulfilled the inclusion and exclusion criteria. After getting treatment with Remdesivir, the participants had a median recovery time of 10 days). The in-hospital mortality was 14% by day 15. Serious adverse events were reported in the case16% of patients in the form of renal impairment (08%) and drug rash (08%).

Conclusion: The results obtained from our study show that Remdesivir can play a significant role in shortening hospital stay, hastening clinical recovery, and reducing serious complications in hospitalized patients suffering from severe COVID-19 disease.

Keywords: SARS-CoV-2, oximetry, mechanical ventilation, radiological improvement.

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I. Introduction

The coronavirus disease-2019 pandemic popularly known as COVID-19is an infectious disease caused by severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), a novel coronavirus [1]. Since its origin, in December 2019 in Hubei Province of China, the novel coronavirus has devastated lives and livelihoods worldwide[2].Though it's not new for this earth to fight pandemics, this time it has challenged us to rethink our global heath achievements and brought about a major socioeconomic breakdown around the world. Moreover, the pandemic has been associated with a mortality rate of all times (10%)[3].

Coronaviruses can cause a wide range of respiratory infections in human hosts. SARS-CoV-2 is a positive-sense single-stranded ribonucleic acid (RNA) virus with an incubation period of up to 14 days and an infectivity rate (R0) from 1.5 to more than 6 in some areas of the world[4]. Many infected patients are asymptomatic and about 80%–90% have mild or moderate disease[5]. Currently, there is no antiviral drug to be claimed as absolutely beneficial and vaccines have got approval just recently. So, the search for an antiviral is still going on.

Remdesivir is a prodrug of a nucleotide analogue that is intracellularly metabolized to an analogue of adenosine triphosphate that inhibits viral RNA polymerases [6]. Remdesivir has broad-spectrum activity against members of several virus families, including filoviruses (e.g., Ebola) and coronaviruses (e.g., SARS-CoV and Middle East respiratory syndrome coronavirus [MERS-CoV]) and has shown prophylactic and therapeutic efficacy in nonclinical models of these coronaviruses[7], [8]. In vitro testing has also shown that remdesivir has activity against SARS-CoV-2[9]. Besides, in nonhuman primate studies, remdesivir initiated 12 hours after inoculation with MERS-CoV[10,11] reduced lung virus levels and lung damage[10]. Remdesivir appears to have a favorable clinical safety profile, as reported based on experience in approximately 500 persons, including healthy volunteers and patients treated for acute Ebola virus infection and supported by data (on file and shared with the World Health Organization [WHO]) [11], [12]. In this report, we describe outcomes in a cohort of patients hospitalized for severe Covid-19

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who were treated with remdesivir on a compassionate-use basis.

So, as a part of the intensive search for an effective antiviral agent, we designed a randomized double-blind trial of Remdesivir on hospitalized severe COVID-19 patients (after laboratory confirmation). Based on initial research and with the approval of the ethical committee we conducted the study on patients in Corona dedicated Hospital, Khulna; Flu corner and Isolation Ward of Khulna Medical College Hospital and Gazi Medical College Hospital.

II. Methods

a) Design

The enrolment for the above-designed study started on August 27, 2020, and ended on October 20, 2020. We conducted the trial simultaneously in three institutes under two different authorities namely Corona Dedicated hospital, Khulna and Isolation and Flu Corner of Khulna Medical College Hospital (Government Institutes), and Gazi Medical College Hospital (Private Institute). After strict maintenance of the inclusion and exclusion criteria patients were selected for this interventional trial. At enrolment, we followed the national guideline of Bangladesh for COVID-19 management published by DGHS (Directorate General of Health Services), Bangladesh to categorize the patients according to disease severity. We allocated patients with severe COVID-19 infections for the study as per the research protocol. Severe cases were defined as cases having either respiratory distress (≧30 breaths/min); or finger oxygen saturation≦93% at rest, or arterial partial pressure of oxygen (PaO2)/fraction of inspired oxygen (FiO2)≦300mmHg (1mmHg=0.133kPa)[13]. The trial was designed to use injectable Remdesivir in the dose of 200-mg on day 1, followed by 100 mg daily on days 2 to5 or until hospital discharge or death. All the enrolled patients had simultaneously other supportive care according to the standard treatment protocol practiced throughout the country as per national guidelines. Any other experimental treatment or alternative medicines (widely practiced in the country) or any OTC drug or use of any other medications designated as a specific treatment for Covid-19 were restricted throughout the study period (whether such medications could have been started before enrolment in this trial or not).

We took approval by the Ethical Clearance Committee of both Khulna Medical College (for Corona Dedicated hospital, Khulna and Isolation and Flu Corner of Khulna Medical College Hospital) and Gazi Medical College for conducting the trial. The study was also oversaw by an independent data and safety monitoring board from time to time. Informed written consent was obtained from each patient or from their legal guardian in case the patient was unable to provide consent.

b) Procedures

There were daily routine follow-ups of the patients in some pre-fixed clinical parameters. Both subjective and objective assessments were included in these regular check-ups. Thorough physical examination with special attention to general and cardio-respiratory systems was a routine task. All routine and special investigations and any investigation felt necessary during hospitalization were done from time to time. Any reported or observed adverse events were recorded and any correlation either with an increase in severity from day 1 or suspected drug-related hypersensitivity reactions was searched.

c) Outcomes

The primary outcome of this study was the time to recovery. According to the national guideline, this recovery was defined as the first day, during the 14 days after enrolment, on which a patient met the clinical criteria for recovery like a resolution of fever without the use of fever-reducing medications e.g paracetamol for at least 3 (three) days and significant improvement in the respiratory symptoms (e.g., cough, shortness of breath) for 3 days [13].

There were several secondary outcomes of the study. Among them, the key secondary outcome was mortality from the date of enrolment until 14 days later. Other secondary outcomes included the time to improvement in oxygen saturation (SpO2) by pulse oximetry upto day 14; the incidence of new mechanical ventilation use within 14 days from the day of enrolment; duration of hospitalization from the day of randomization until the date of hospital discharge or date of death from any cause, whichever came first, assessed up to 14days and cumulative incidence of serious adverse event assessed on a routine basis from day 1 of enrolment to 14th day and radiological improvement after intervention.

d) Statistical Analysis

The primary analysis was a stratified log-rank test of time to recovery with Remdesivir with stratification by disease severity (the actual severity at baseline). For the analysis of time to-recovery and time-to-improvement outcomes, data for patients who did not recover and data for patients who died were censored at day 14.

Patients were subgrouped in these study according to several predetermined criteria like age (18 to 39 years, 40 to 64 years, o≧65 years), sex, race, socio-economic condition, disease severity at enrolment (according to stratification criteria), duration of symptoms before hospitalization, and presence of coexisting conditions. (See the protocol for more information about the trial methods.) For the assessment of the effect of disease severity on treatment benefit (recovery and mortality), post hoc

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analyses evaluated interactions of efficacy with baseline clinical data (as a continuous variable).

III. Results

A total of 67 patients were assessed for eligibility. Among them, 53 fulfilled all the inclusion and exclusion criteria. But there was discontinuation in the study due to withdrawal of consent in the case of 03 patients. So, 50 patients continued the trial and all of them completed the study through 14 days, recovered, or died.

The minimum age of presentation was 31 years and the maximum was 87 years. The mean age of the patients was 57.46 years. Among the patient's majority, 23 (46%) belonged to 51-60 years of age followed by 11(22%) in the 61-70 years group and 09(18%) in the 41-50 years aged group (Figure 1).

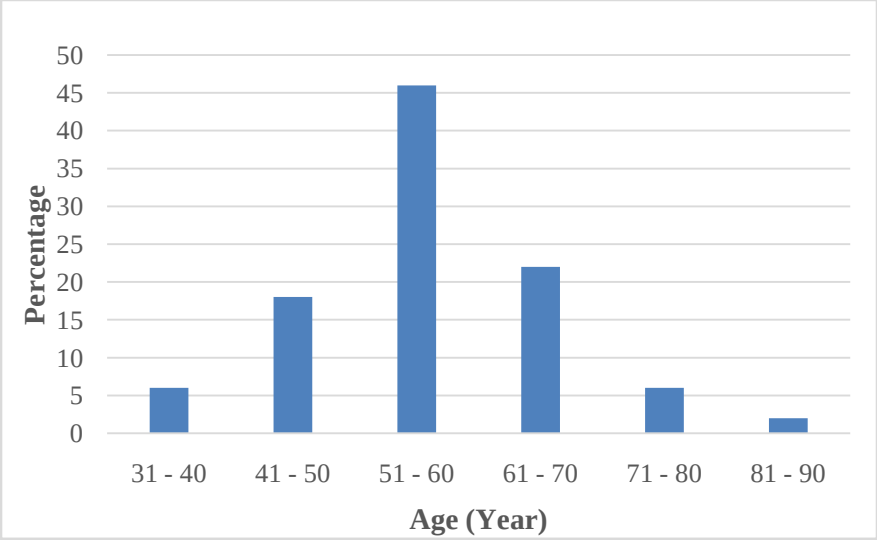

Figure 1: Age Distribution of the Patients

Of the participants 44(88%) were male and 06(12%) were female. Among 50 patients 41(82%) were married and the remaining 09(18%) were widowed. Occupational analysis of the patients showed that most of them 16(32%) were business persons and 15(30%) were service-holders, and the remaining 13(26%) had other occupations while 06(12%) females were housewives. If we focus on their socio-economic status, we find that 21(42%) patients belonged to the upper-middle-class followed by 20(40%) from the lower middle class, 07(14%) from the upper class, and the rest of them from the lower class (02, 04%). In this study majority of the patients had graduation or higher education 25 (50%) where others had studied either upto primary school (5th grade) (10, 20%) or, secondary school (10th grade) (08, 16%), or Higher secondary (12th grade) (10, 20%) and 07(14%)% were illiterate (Table 1).

Table 1: Demographic characteristics of the study population

Characteristics		Remdesvir (N= 50)
Age - Year		57.46±10.53
Sex - No. (%)	Male	44 (88)
	Female	6 (12)
Marital Status - No. (%)	Married	41 (82)
	Widow/er	9 (18)
Occupation - No. (%)	Business	16 (32)
	Service	15 (30)
	Housewife	6 (12)
	Others	13 (26)
Socio-economic Status - No. (%)	Lower class: 2-4	2 (4)
	Lower middle class: 5-7	20 (40)

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	Upper middle class: 8-9	21 (42)
	Upper class: 10-11	7 (14)
Educational Status - No. (%)	Illiterate	7 (14)
	Primary	10 (20)
	SSC	8 (16)
	HSC	10 (20)
	Graduate and above	15 (30)

Among the participants, 100% had at least one pre-existing risk factor at the time of enrolment to the study. Most prevalent co-morbidity was type 2 diabetes mellitus 34(68%) followed by hypertension33 (66%), bronchial asthma 07(14%), IHD 10(20%), dyslipidaemia 08(16%), COPD 06(12%), and others covered 07(14%)(Table 2). Another important risk factor was smoking. Among the 88% male patients, 26(52%) were current smokers. About 40(80%) male patients had a current or previous history of smoking 14 (28%) and 45(90%) of all patients had also passive smoking history.

Table 2: Prevalence of medical comorbidity and risk factor

Medical Comorbidity and Risk Factor - No. (%)	Remdesvir (N= 50)
Diabetes Mellitus	34 (68)
HTN	33 (66)
Smoking	26 (52)
IHD	10 (20)
COPD	6 (12)
BA	7 (14)
Dyslipidaemia	8 (16)
Others	7 (14)

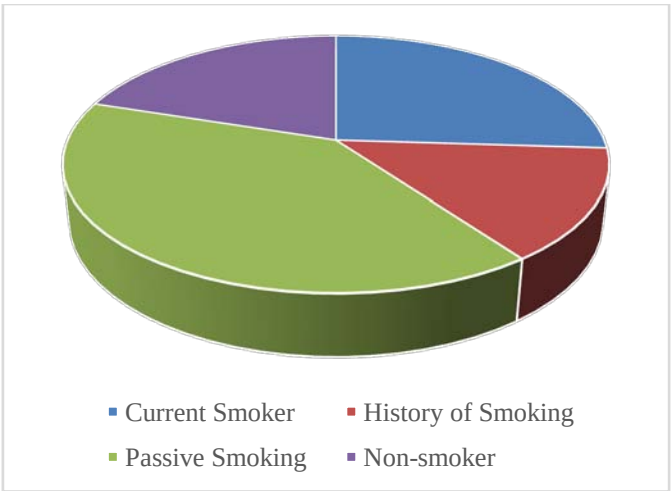

Figure 2: Status of Smoking of the Study Population

As most of the people in this country still don't utilize authorized health care facilities, most of the patients had some pre-admission treatment history including both prescribed and over the counter medications. Among prescribed medications most common was antihypertensive drugs 33(66%), anti-diabetic medications (both oral anti-diabetic drugs and insulin) 31(62%), and lipid-lowering drugs11(22%). Apart from the majority of the above-mentioned drugs of the patients had already consumed several over the counter medications like paracetamol 50(100%), antibiotics 49(98%) anti-histamine drugs 45(90%), bronchodilators 43(86%), montelukast 42(84%), and different types of cough syrups40(80%) (Table 3).

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Table 3: Pre-hospital medication consumption history

Medication - No. (%)	All (N= 50)
Anti-hypertensive Drug	33 (66)
Anti-Diabetic medications	31 (62)
Lipid-Lowering drugs	11 (22)
Paracetamol	50 (100)
Antibiotic	49 (98)
Anti-histamine drug	45 (90)
Bronchodilator	43 (86)
Montelukast	42 (84)
Cough syrup	40 (80)

The minimum duration of symptoms was 03 days and the maximum was ten days before the admission into the hospital where the median duration of symptom onset and hospital admission was 05 days. As a presenting complaint most prevalent was shortness of breath/dyspnoea 48(96%) and cough 46(92%) followed by fever 44(88%), headache 30(60%), fatigue 30(60%), vomiting 23(46%), sore throat 12(24%), loose motion 12 (24%), confusion 12(24%) and others 03(06%). On physical examination, the majority of patients 47(94%) had raised temperature(99-102.f), tachypnoea 47(94%), tachycardia 39(78%), high blood pressure 28(56%), other significant physical findings were anaemia 18(36%), edema 17(34%), dehydration 06(12%), and abnormal systemic findings were mostly in respiratory system namely features of bilateral pulmonary consolidation 45(90%), COPD 06(12%) and unilateral consolidation 05 (10%) (Table 4).

Table 4: Clinical characteristics of the patients at enrolment

Clinical Feature		All (N= 50)
Duration of Symptom - Median (days)		5
Symptoms - No. (%)	Dyspnoea	48 (96)
	Cough	46 (92)
	Fever	44 (88)
	Headache	30 (60)
	Fatigue	30 (60)
	Vomiting	23 (46)
	Sore Throat	12 (24)
	Loose Motion	12 (24)
	Confusion	12 (24)
	Others	3 (6)
Signs - No. (%)	Raise Temperature	47 (94)
	Tachypnoea	47 (94)
	No. of Patients receiving O2 at Baseline	50 (100)
	Tachycardia	39 (78)
	High Blood Pressure	28 (56)
	Anaemia	18 (36)
	Edema	17 (34)
	Dehydration	6 (12)
	Bilateral Pulmonary Consolidation	45 (90)
	Unilateral Consolidation	5 (10)
	COPD	6 (12)

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For the evidence of systemic involvement and as a part of routine follow-up patients had several investigations including pathological and radiological tests. The most common finding was leucocytosis 37(74%) followed by neutrophilia 36(72%), lymphopenia 35(70%), hyperglycaemia 34(68%), raised serum creatinine 28(56%), anaemia 18(36%), and proteinuria 17(34%). Some other important lab tests also showed supportive changes like raised ESR 50(100%), increased CRP 50(100%), raised serum D-dimer 45(95%), raised serum ferritin 45(90%), raised serum LDH 43(86%).In ECG there were some significant findings suggestive of LVH 28(56%), IHD 10(20%), and RVH 06(12%). Radiology of chest also had suggestive findings like chest x-ray showed patchy in homogenous opacities bilaterally 49(98%) and unilaterally 01(02%) but there was also cardiomegaly in 10(20%) as well as features of COPD in 03(06%) patients. On the other hand, HRCT of the chest showed ground-glass opacities and multiple reticulonodular shadows in 50(100%) patients in various percentages (Table 5).

Table 5: Haemato-pathological & radiological abnormalities at baseline

Haemato-pathological & Radiological Findings - No. (%)		All (N= 50)
CBC	Raised ESR	50 (100)
	Leucocytosis	37 (74)
	Lymphopenia	36 (72)
	Neutrophilia	35 (70)
	Anemia	18 (36)
RBS	Hyperglycaemia	34 (68)
Raised Serum Creatinine		28 (56)
Urine R/E (Proteinuria)		17 (34)
Raised CRP		50 (100)
Raised Serum D-dimer		45 (90)
Raised Serum Ferritin		45 (90)
Raised Serum LDH		43 (86)
ECG	LVH	28 (56)
	IHD	10 (20)
	RVH	6 (12)
Chest X-Ray	Bilateral Inhomogenus Opacity	49 (98)
	Unilateral Inhomogenus Opacity	1 (2)
	Cardiomegaly	10 (20)
	COPD	3 (6)
HRCT of Chest	Ground Glass Opacity	50 (100)
	Raticulonodular Shadow	50 (100)

a) Primary outcomes

The primary outcome was time to recovery which has been defined earlier. Treatment with Remdesivir brought an earlier recovery and patients had a median recovery time of 10 days and the average recovery time was 9.56 days. Among all the patients who received treatment during the first 07 days after the onset of symptoms had an earlier recovery than those who presented and treated later. The beneficial outcomes of Remdesivir were more when given earlier in the illness thereafter gradually reduced with the increase in the duration of symptoms. (Table 6).

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Table 6: Summary of the primary and secondary outcomes of the study population

Outcomes		All (N= 50)
Time to Recovery - days	Median	10
	Average	9.56
Mortality - No. (%)		7 (14)
Improvement in SPO2 - %	By 3rd Day	50
	By 7th Day	90
Duration of Hospital Stay - days	Median	12
	Average	11.46
Incidence of New Mechanical Ventilation - No. (%)		7 (14)
Adverse events - No. (%)	AKI	4 (8)
	Skin Rash	4 (8)
	Jaundice	3 (6)
	Nausea	16 (32)
	Vomiting	19 (38)
	Fatigue	11 (22)
	Increased Blood Glucose	1 (2)
Radiological Improvements - No. (%)	Chest X-Ray	20 (40)
	HRCT scan of Chest	12 (24)

b) Secondary outcomes

The key secondary outcome of the study was mortality within 14 days of allocation with treatment which was14% (07 patients). As each patient had at least one co-morbidity or risk factor, so separate analysis of the effects of pre-existing risk factor or co-morbidity on mortality was not done (Table 6).

Another secondary outcome of the trial was to estimate the duration of hospital stay. The median duration of hospital stay was 12days. The maximum and minimum hospital stay was 20 days and 02 days respectively and the average duration of hospital stay was 11.46 days (Table 6).

All the participants were receiving oxygen at enrolment in different modes. There was a 50% improvement in SPO2 by 3rd day and 90% by completion of treatment with Remdesivir. For the 20(40%) patients receiving high-flow oxygen at the entry to the study, the median duration of use of this was 04 days. Among the 30(60%) patients who were not receiving non-invasive ventilation, high-flow oxygen, invasive ventilation, or ECMO at enrolment, the incidence of new noninvasive ventilation or high-flow oxygen use was 14% (07 patients). At the time of entry in the study, no patient was receiving mechanical ventilation or ECMO but during the treatment, the incidence of new mechanical ventilation was 14% (07patients), but there was no incidence of ECMO(Table 6).

There were various adverse events observed or reported after initiation of treatment with Remdesivir. The most common serious adverse events were acute kidney injury 08% (04 patients), skin rash 08% (04 patients), and jaundice 06% (03 patients). Some other adverse events took place which was considered non-serious occurring in almost all patients included nausea (16 patients, 32%), vomiting (19 patients, 38%), fatigue (11 patients, 22%), and increased blood glucose level (01 patient, 2%)(Table 6).

Another secondary outcome was radiological improvement following treatment with Remdesivir. Among 50 patients 20 (40%) had radiological resolutions in chest x-rays and 12(24%) had a resolution to the various extent in HRCT scan of the chest (Table 6).

IV. Discussion

This double-blind, randomized, prospective trial showed that antiviral therapy has efficacy in the treatment of Covid-19. A rapid improvement in terms of both clinical and laboratory parameters was found after treatment with Remdesivir. A 05-day course of injectable Remdesivir reduced the hospital stay and shortened the recovery time to an average of 9.56 days and a median recovery time was 10 days. This trial also demonstrated Remdesivir effective to some extent in reducing mortality (key secondary outcome). All-cause mortality was 14%

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in this group of severe COVID-19 patients. Moreover, Remdesivir treatment resulted in a shorter duration of hospital stay and earlier discharge from the hospital. The average hospital stay was 11.46 days with a median of 12 days.

Besides dexamethasone oxygen is the only proven supportive treatment for Coronavirus disease, so there were two secondary outcomes related to this therapy[14]. If we consider the improvement in SPO2 after initiation of treatment we find that Remdesivir may have slowed down the progression to more severe respiratory disease, as shown by the significantly rapid improvement in SPO2 following Remdesivir treatment (50% by 3rd day and 90% by 5th day), as well as a reduced incidence of new oxygen use among patients who were not receiving oxygen initially and a fewer number of patients requiring higher levels of respiratory support during the study. Besides, treatment with Remdesivir resulted in fewer days of subsequent oxygen use, and only 07(14%) patients required mechanical ventilation during the study. So, looking into all these potential benefits, this study proved that Remdesivir can play a valuable role in reducing mortality and morbidity from severe COVID-19 infections and help to materialize the plan of the judicial use of limited health care resources.

The findings in our study should have a comparison in similar outcomes with those observed in other randomized trials of Remdesivir. The first stage of the Adaptive Covid-19 Treatment Trial (ACTT-1) funded by the National Institute of Allergy and Infectious Diseases and others; randomized a total of 1062 patients (with 541 assigned to Remdesivir and 521 to placebo). Those who received Remdesivir had a median recovery time of ten days as compared with 15 days among those who received placebo. This study also demonstrated that the patients who received Remdesivir were found to be more likely than those who received placebo to have clinical improvement at day 15. The Kaplan–Meier estimates of mortality were 6.7% with Remdesivir and 11.9% with placebo by day 15. Serious adverse events were reported in 131 of the 532 patients who received Remdesivir (24.6%) and in 163 of the 516 patients who received placebo (31.6%)[15]. Most of the findings of this large scale study have a proximity to the outcomes of our study except the mortality rate. But in this study, there were mild, moderate, and severe cases where we included only severe cases. So, high mortality in respect to that study is quite inevitable.

Early in the pandemic Wang et al. enrolled 237 patients (158 assigned to Remdesivir and 79 to placebo) in China and found a shorter time to improvement (a two-point improvement) with Remdesivir: 21.0 days (95% CI, 13.0 to 28.0) in the Remdesivir group and 23.0 days (95% CI, 15.0 to 28.0) in the placebo group[16]. But that trial did not complete full enrolment owing to local control of the outbreak.

In another open-label, randomized study of remdesivir in hospitalized patients with moderate-severity Covid-19 (83% were not receiving oxygen at baseline),those randomized to a 10-day course of remdesivir did not have a statistically significant difference in clinical status compared with standard care at 11 days after initiation of treatment. Patients randomized to a 5-day course of remdesivir had a statistically significant difference in clinical status compared with standard care (odds ratio, 1.65; 95% CI, 1.09 to 2.48; P=0.02)[17].

It was a tough task to accomplish the trial during an unpredictable and sudden outbreak of a pandemic. There was not only a loss of lives but also a massive economic shutdown. The research team was simultaneously carrying out their hospital duties alongside conducting this trial. Three trial sites were placed in different places. Moreover, there was a scarcity of medications, personal protective equipment, sample taking facilities and trial-related supplies, investigation facilities, and an also different set of workers with shifting and roster duties which brought a lack of fascination to complete the study. However, our research team overcame all these obstacles and hardships with vigorous physical and intellectual efforts. As a result, we were able to enroll in a diverse population, similar to the population that was being infected with SARSCoV-2 during this pandemic.

V. Limitations

Despite the tremendous effort of an extraordinarily co-operative team, the study lagged in several aspects. Firstly, it was tough to allot a large population in this treatment arm due to rapidly evolving national and international treatment protocols. As a result, the sample size could not be big enough to make any strong interpretation. Secondly, all three trial sites were distant from each other having individual authorities and working stuff. So, to maintain a uniform treatment protocol everywhere was not possible in each case. Thirdly, in this trial, we only enrolled severe disease patients. This resulted in high mortality rates in comparison with other similar studies and it was difficult to make any comment on the efficacy of Remdesivir in other spectrums of the disease. Finally, as we only monitored the patients upto 14 days or their discharge from the hospital, we could not evaluate any late complications related either to the drug or disease itself.

VI. Conclusion

The COVID-19 pandemic is still going on and there are catastrophic consequences not only in the health sector but also massive socio-economic collapse around the world. It seems that this pandemic is

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unstoppable and the search for an effective drug or vaccine is also never-ending. Considering all the facts and realities it can be said that despite several limitations this study can guide us in several ways. The results obtained from this trial can be used as preliminary data to design a more large scale study. This study can be a milestone in the way to find out a fruitful agent to fight against the COVID-19 pandemic.

References Références Referencias

1. S. Perlman, "Another Decade, Another Coronavirus," N. Engl. J. Med., vol. 382, no. 8, pp. 760–762, Feb. 2020, doi: 10.1056/nejme2001126.
2. Y. A. Helmy, M. Fawzy, A. Elaswad, A. Sobieh, S. P. Kenney, and A. A. Shehata, "Clinical Medicine The COVID-19 Pandemic: A Comprehensive Review of Taxonomy, Genetics, Epidemiology, Diagnosis, Treatment, and Control," vol. 9, no. 4, p. 1225, 2020, doi: 10.3390/jcm9041225.
3. M. Chan-Yeung and R.-H. XU, "SARS: epidemiology," Respirology, vol. 8, no. s1, pp. S9–S14, Nov. 2003, doi: 10.1046/j.1440-1843.2003.00518.x.
4. S. Joshi et al., "Role of favipiravir in the treatment of COVID-19," Int. J. Infect. Dis., Oct. 2020, doi: 10.1016/j.ijid.2020.10.069.
5. A. PG, "Coronavirus COVID-19 (SARS-CoV-2)," vol. 19, pp. 1–17, 2020.
6. V. C. Yan and F. L. Muller, "Gilead should ditch remdesivir and focus on its simpler ancestor - STAT," 2020. [Online]. Available: https://www.statnews.com/2020/05/14/gilead-should-ditch-remdesivir-and-focus-on-its-simpler-safer-ancestor/. [Accessed: 16-Dec-2020].
7. T. P. Sheahan et al., "Comparative therapeutic efficacy of remdesivir and combination lopinavir, ritonavir, and interferon beta against MERS-CoV," Nat. Commun., vol. 11, no. 1, 2020, doi: 10.1038/s41467-019-13940-6.
8. M. L. Agostini et al., "Coronavirus susceptibility to the antiviral remdesivir (GS-5734) is mediated by the viral polymerase and the proofreading exoribonuclease," MBio, vol. 9, no. 2, pp. 1–15, 2018, doi: 10.1128/mBio.00221-18.
9. M. Wang et al., "Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro," Cell Res., vol. 30, no. 3, pp. 269–271, 2020, doi: 10.1038/s41422-020-0282-0.
10. E. de Wit et al., "Prophylactic and therapeutic remdesivir (GS-5734) treatment in the rhesus macaque model of MERS-CoV infection," Proc. Natl. Acad. Sci. U. S. A., vol. 117, no. 12, pp. 6771–6776, 2020, doi: 10.1073/pnas.1922083117.
11. WHO, "Therapeutics and COVID-19," no. November, 2020.
12. F. Lamontagne et al., "A living WHO guideline on drugs for covid-19," BMJ, vol. 370, Sep. 2020, doi: 10.1136/bmj.m3379.
13. DGHS, "National Guidelines on Clinical Management of COVID-19," vol. 7, no. November, May 2020.
14. The Recovery Collaborative Group, "Dexamethasone in Hospitalized Patients with Covid-19 — Preliminary Report | Enhanced Reader," 2020. [Online]. Available: chrome-extension://dagcmkpagjlhakfdhnbomgmjdpkdklff/enhanced-reader.html?openApp&pdf=https%3A%2F%2Fwww.nejm.org%2Fdoi%2Fpdf%2F10.1056%2FNEJMoa2021436%3FarticleTools%3Dtrue. [Accessed: 16-Dec-2020].
15. J. H. Beigel et al., "Remdesivir for the Treatment of Covid-19 — Final Report," N. Engl. J. Med., vol. 383, no. 19, pp. 1813–1826, 2020, doi: 10.1056/nejmoa2007764.
16. Y. Wang et al., "Remdesivir in adults with severe COVID-19: a randomised, double-blind, placebo-controlled, multicentre trial," www.thelancet.com, vol. 395, p. 2020, 2020, doi: 10.1016/S0140-6736(20)31022-9.
17. C. D. Spinner et al., "Effect of Remdesivir vs Standard Care on Clinical Status at 11 Days in Patients with Moderate COVID-19: A Randomized Clinical Trial," JAMA - J. Am. Med. Assoc., vol. 324, no. 11, pp. 1048–1057, 2020, doi: 10.1001/jama.2020.16349.

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How do Key- Populations Cope with their Behavior-Related Stigma? A Qualitative Study in a Province in Sri Lanka

By T.S.M. Fernando & H.M.J.P. Vidanapathirana

Abstract- Key populations are at the highest risk of acquiring and transmitting the Human Immuno-deficiency Virus (HIV). Due to the stigma vested upon them, they have become least accessible for preventive and curative services for HIV. Therefore, coping strategies are essential to minimize stigma to end AIDS by 2025, five years ahead of the global target of ending AIDS in 2030.

The objective was to describe the coping strategies adopted by key-populations to overcome behavior-related stigma.

Data from thirty-two in-depth interviews were analyzed using the thematic analysis method.

Keywords: *coping strategies, key populations, stigma.*

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How do Key- Populations Cope with their Behavior-Related Stigma? A Qualitative Study in a Province in Sri Lanka

T.S.M. Fernando [α] & H.M.J.P. Vidanapathirana [σ]

Abstract- Key populations are at the highest risk of acquiring and transmitting the Human Immuno-deficiency Virus (HIV). Due to the stigma vested upon them, they have become least accessible for preventive and curative services for HIV. Therefore, coping strategies are essential to minimize stigma to end AIDS by 2025, five years ahead of the global target of ending AIDS in 2030.

The objective was to describe the coping strategies adopted by key-populations to overcome behavior-related stigma.

Data from thirty-two in-depth interviews were analyzed using the thematic analysis method.

Being financially stable, engaging in activities that improve physical and mental health, being open regarding their behavior, and winning the confidence of family members were identified as active coping strategies. Being obedient to stigmatizers, keeping the behavior a secret, avoiding/ being away from home, and looking at the issue from a non-key population's angle are passive coping strategies.

Keywords: coping strategies, key populations, stigma.

I. Introduction

Internationally, intravenous drug users (IDU), female sex workers (FSW), men who have sex with men(MSM), and transgender (TG) are known as Key populations (KP) (United Nations Programme on HIV/AIDS (UNAIDS, 2017). They are at the highest risk of acquiring and transmitting HIV due to their behavior. In the Sri Lankan context, the four key population groups identified at the time of developing this study were drug users (DU), FSW, MSM, and TG (National STD/AIDS Control Programme, Sri Lanka (NSACP), 2015). They are well known as a hidden population. Thus, they face a high level of self, perceived and enacted stigma because they belong to a KP group. In this study self, and perceived stigma are collectively called behavior-related stigma.

Stigma and discrimination are major obstacles to universal access to HIV prevention, treatment, and care. The initial reaction to stigma is silence. Then it further develops to denial and finally can lead to violence. Therefore, it is evident that strengthening coping strategies among KP to reduce stigma is of utmost importance (Rosenbloom & Volkow, 2007).

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Coping is defined as the process by which individuals regulate stressors that they face. Coping strategies are two general types: 1) those that are "active/ problem-focused strategies" versus 2) those that are "passive/avoidant" strategies (Health Policy project, 2013). They can be either interpersonal or intrapersonal (Zhang et al., 2014).

Reducing stigma and discrimination is identified as one of the four critical enablers that help to overcome critical barriers to service uptake, including social exclusion and marginalization, criminalization, stigma, and inequity among KP (UNAIDS, 2014).

Improvements to interventions that minimize stigma in KP groups can be done with the help of the identified coping strategies. These will help them to overcome the stigma and make them highly accessible to health care facilities.

The objective of the study was to describe the coping strategies adopted by Key populations to overcome behavior-related stigma.

II. Methods

A qualitative study was conducted to identify the coping strategies adopted by the KP to over comestigma. In-depth interviews were selected over focus group discussions because participants would not voice their views and experiences in a forum where their peers were present. The study included 32 participants, eight from each group in the Western province in Sri Lanka. The participants who were more than 18 years of age, resided in either Colombo, Kalutara or, Gampaha districts for more than six months, and who were not diagnosed with any psychiatric illness were included in this study were selected. The level of stigma was not considered during the recruitment of participants. The ideas reached saturation with the sample size mentioned above.

Investigators developed an in-depth interview guide to collect data. A thorough literature review, discussions with experts, and representatives from the KP groups were conducted to develop the guide. A panel of experts assessed the content validity of the guide.

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The qualitative data were analyzed using the thematic analysis approach. Transcribing was done by the principal investigator.

Ethical clearance was obtained from the ethics review committee, faculty of Medicine, University of Kelaniya, Sri Lanka, before the commencement of the study. Administrative clearance was obtained from the provincial director of health services of Western province.

III. Results

The age range of drug users (DU) participants was 26 – 48 years, 29 – 51 years in men who have sex with men (MSM), 20 – 55 years in female sex workers (FSW), and 24 – 45 years in transgender (TG). The educational level of these groups varied from non-attendance to school to a diploma holder among DU, schooling up to grade 10 to degree holder among MSM, grade five at school to G.C.E. Advance level among FSW and G.C.E.O/L to degree holder among TG.

The active (problem focus) coping strategies identified in this study are being open regarding the key behavior, being financially stable, winning the confidence of family members, and engaging in activities that improve physical & mental health. The passive coping strategies identified in this study are being obedient to the stigmatizers/nonconfrontation, keeping the behavior a secret, avoid family members, relatives, close friends, being away from home/ residence, looking at the issue from a non-KP's angle.

The above themes were further classified as intrapersonal and interpersonal.

IV. Active Coping Strategies

Intrapersonal

- Being financially stable (Intrapersonal)

Being financially stable has been a positive factor for all four KP groups to cope with their behavior-related stigma. They believed that if a person is financially stable and could help others financially, they will not be stigmatized.

One FSW stated: "I earn more than what I need for my expenses at the moment. I know that I can't do this job for a long time, especially when I get old. Therefore, I save the same money for my future needs."

- Engaging in activities that improve physical and mental health

Some of them have been engaged in other activities like religious activities, watching a film, or listening to music to overcome the stigma when an incident that provoked stigmatizing attitudes on them occurred. There were few FSW who mentioned that they would engage in some other activity to forget the stigma. Some stated that they would engage in religious activities. One transman expressed that he would read a novel when a stigmatizing attitude arises in his mind.

Interpersonal

- Being open and talk regarding the Key behavior

Explaining to others regarding their Key behavior was a coping strategy adopted by all four KPs. One DU stated, "People always scold me for using abusive drugs. When they scold, I tell them: Yes, I do so. I can't stop using it."

That was one of the coping strategies adopted by many MSM participants as well. One stated, "When I was penalized by society due to my homosexual behavior, I didn't keep silent. I explained to them the situation. After that, they didn't harass me." Another MSM participant stated that the "General population doesn't accept homosexuality. But I think we should explain about this and tell them that MSM also has a right to live."

They have been assertive and explaining the stigmatizers that homosexuality is a normal phenomenon and there is a right for homosexual people to live in society. This was one of the main adaptive strategies adopted by the FSW participants to overcome stigma. They had confronted and opposed the negative perceptions on FSW raised by society.

a) Winning confidence of the family

Building confidence is a positive factor through which the KP could overcome their behavior-related stigma. They believed that they could live with a minimal level of stigma despite their key behavior if they could build confidence among the family as a needy person.

One transman stated: "Although I changed by gender identity, I don't do wrong things. I studied well and became an accountant. Now my parents don't stigmatize me. I have heard my mother explaining about me to one of her friends in the village. I was proud to hear that."

V. Passive Coping Strategies

Intrapersonal

- Being obedient to stigmatizers/nonconfrontation

Being obedient to the stigmatizers and nonconfrontation have been adopted by some KP who participated in this study. The majority of the drug users claimed that there is no benefit in being assertive towards drug use when they get harassed by society. They believed that if they kept calm and obedient to what the stigmatizers tell them, they could overcome that situation.

However, non – confrontation with the stigmatizers has not been adopted by any MSM who participated in the in-depth interviews.

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- Keeping the behavior a secret

The majority of the KPs who participated in the in-depth interviews had kept their Key behavior a secret. Most of the MSM participants believed that it is not necessary to reveal their sexual orientation to others. They also thought that keeping the status of homosexuality a secret would help them spend life without problems. One MSM participant stated: "I have no problem regarding my homo-sexual behavior because my spouse doesn't know about it. I have my homo-sexual relationship very secret, and I ensure it is nondisclosed to anybody other than my homo-sexual partner."

This coping strategy was adopted by almost all the FSW participants as well. They have adopted different strategies to keep sex work a secret. Some of them directly stated that they would keep their engagement in sex work a secret while some described how they kept this principal fact a secret by taking safety measures to hide sex work. Some of them are engaged in another job while doing sex work, not staying in brothel houses or streets were commonly raided by police, finding clients through telephone calls/ internet or at night clubs, engage in sex work only with few known clients, and Engage in sex work only at night. One transman stated, "Since nobody can't identify me as a transman just by a glance, I don't want to go and tell everyone that I'm transgender. I don't think it as a necessity as well."

- Being away from home

Being away from home has been adopted as a coping strategy by the majority of the KP. This was a leading strategy among the DU participants, and they believed that to overcome the stigma and discrimination due to drug use, they need to have an environment that does not induce such behavior. Few of them thought that the rehabilitation centers did not work for them. Once they come home (to the usual setting where they have been using drugs) they are put to the same behavior again. Therefore, they suggested that it would have been effective if the authorities could provide a new place where they could live for about one or two years. They believed they could live there without using drugs because there is no conducive environment for such behavior. Thus, if a person is determined to stop using drugs, he or she may continue to do so. Some MSM participants also believed that it would have been better if they could live away from their parents or siblings while some have decided to do so.

Interpersonal

- Looking at the issue from a non-KP's angle

Few who participated in this study believed that they should look at the issue from a person who does not belong to their community. They pointed that others discriminate against them mainly because they think the key behaviors are against our cultural norms and values. They believed that it is easier to be ignorant rather than trying to open the eyes of people whose conception of Key populations cannot be changed.

VI. Conclusions and Recommendations

We identified both active and passive coping strategies adopted by KP groups to overcome behavior-related stigma. The main active coping strategies are being open regarding the Key behavior, being financially stable, winning the confidence of others, engaging in activities that improve physical and mental health while being obedient to stigmatizers, keeping the Key behavior a secret, avoid family members, relatives, friends and being away from the residence were the passive coping strategies.

New interventions to reduce stigma among KP can be developed and the existing interventions can be improved using the coping strategies identified in this study. Since these coping strategies are merely the ideas of KP, these findings should be forwarded to Consultant Psychiatrists and higher officials in the mental health directorate to assess their suitability to be incorporated into stigma reduction interventions.

VII. Discussion

In-depth interviews were selected over focus group discussions because it was assumed that the participants would not voice their views and experiences in a forum where their peers were present. This assumption was proven to be correct since the participants were quite particular about the maintenance of confidentiality of the information provided by them. This was assured during the interviews and was made sure that only the principal investigator would listen to the audio recordings of the in-depth interviews for transcription. Further, it was decided that in-depth interviews were superior to the focus group discussions because sensitive issues were needed to be discussed at times. A good rapport was built with the participant to obtain accurate information, thus reducing information bias. Conducting the interviews of a particular KP group within a limited number of days prevented contamination bias.

Four broader themes of active coping strategies identified from this study were being assertive regarding the key behavior, being financially stable, winning the confidence of the family, and engaging in activities that improve physical and mental health. Most of the participants in all four KP groups have identified that being open about the key behavior, talking about it with family members or with somebody that they can get help to overcome stigma as a coping strategy. According to them, this strategy is dependent on many internal and external factors. There should be a supportive environment for this strategy to be helpful for KP to overcome stigma. No studies described "being

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open" as a coping strategy to overcome behavior-related stigma. Therefore, it was compared with a qualitative study done among people living with HIV (PLHIV) in China. This Chinese study ensured that seeking support from family, peers, or close friends as a coping strategy has helped them to overcome stigma due to their HIV status (Zang et al., 2014). In this study, in-depth interviews have been conducted and the same method was used in the current study as well. Although the underlying cause for stigma is different, the two studies have been conducted in the same region.

The stigma and the coping strategies used to overcome stigma are similar as China is a country with high socio-cultural values similar to Sri Lanka. Therefore, considering the above positive and negative factors, we compared both these studies with caution.

Financial stability has been identified as a key strategy to overcome behavior-related stigma among all four KP groups who are considered in this study. The same strategy has been used by PLHIV in South India (Kumar, Mohanraj, Rao, Murray & Manhat 2015). It was revealed by a qualitative study which was done in South India through 17 in-depth interviews and four focus group discussions. Regardless of the underlying course, stigma among PLHIV in South India and KP in Sri Lanka seem to be behaving in almost a similar manner when adopting strategies to cope with stigma.

Winning the confidence of family members and becoming a wanted person for them was identified as a coping strategy among all four KP groups in this study. However, this was not identified as a coping strategy in any study at international or in Sri Lankan setting.

Some participants of all four groups of the qualitative component of the current study were in the opinion that engaging in activities like involving in religious activities, watching films, listening to music has helped them to overcome stigma either by forgetting the problem for a while or understanding the nature of the problem. Zhang et al (2014) have also described that engagement in activities that improve physical and mental wellbeing (Ex: swimming, walking, physical exercises, singing, dancing) as an active coping strategy to overcome HIV stigma among PLHIV. However, there was no study of similar nature to compare the findings of the current study.

The broader themes of the passive coping strategies were being obedient to the stigmatizers/ nonconfrontation, keeping the key behavior a secret, avoid family members, relatives, or close friends, and being away from home. Nonconfrontation with the stigmatizers was identified as a key strategy to cope with behavior-related stigma in this study. Nevertheless, this has not been identified as a separate coping strategy in the scientific literature from countries worldwide. Therefore, the results of the current study were not compared with any prior research.

Keeping the Key behavior a secret was identified as a coping strategy among the majority of participants of all four KP groups. Participants who wanted to keep it as a secret thoroughly believed that they feel stigmatized merely due to the divulgence of information regarding their key behavior to others. This has been raised as a coping strategy among most of the participants from all KP groups except TG. Although there is hardly any literature that specifically describes this as a coping strategy among KP, a qualitative study done among PLHIV in china clearly describes ma hiding the HIV status as a coping strategy to overcome HIV-related stigma (Zang et al., 2014). The same strategy has been reported by a group of PLHIV in South India, where they have reported that non-disclosure or selective disclosure of their HIV status has helped them to overcome stigma (Kumar et al., 2015).

Being away from home has been adopted as a coping strategy by most of the DU in the study. Nevertheless, only a few participants of other KP groups raised this fact. Since most of the other studies have identified seeking support from family as a coping strategy to combat stigma, being away from home or residence was not identified as such. Nevertheless, this study discussed an issue related to a Key behavior.

The current study identified being compassionate as a passive interpersonal coping strategy. Similarly, research among PLHIV in China (Zhang et al, 2014) has identified it as a passive interpersonal coping strategy. Most of the participants have coped with the stigma by looking at it from a non-stigmatized person's angle. While the study on HIV stigma looked at the issue from a disease perspective, the current study looked at the problem from a behavioral perspective.

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References Références Referencias

1. Health Policy project, (2013). Understanding and challenging HIV and Key population stigma and discrimination, Caribbean Facilitator's Guide. Washington, DC: Futures Group, Health Policy Project
2. Joint United Nations Programme on HIV/AIDS, (2014). Reduction of HIV-related stigma and discrimination, guidance note, Geneva, Switzerland.
3. Joint United Nations Programme on HIV/AIDS (2017). UNAIDS data - 2017, Geneva, Switzerland. Retrieved on February 23, 2018, from http://www.unaids.org/sites/default/files/media_asset/20170720_Data_book_2017_en.p df

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4. Kumar, S., Mohanraj, R., Rao, D., Murray, K.R., & Manhart, L.E. (2015). Positive Coping Strategies and HIV-Related Stigma in South India. AIDS patient care and STDS, 29 (3) DOI: 10.1089/apc.2014.0182.
5. Link, B.G., & Phelan, J.C. (2001). Conceptualizing stigma. Annual. Rev. Sociology. 27, 363–85.
6. Rosenbloom, D. L., & Volkow, N. (2007). Coping with the Stigma of Addiction. Addiction, 6.
7. National STD/AIDS Control Programme. (2015). Integrated biological and behavioral surveillance survey among key populations at higher risk of HIV in Sri Lanka (2014) – report, Ministry of Health, Colombo, Sri Lanka.
8. Zhang, Y., Golin, C.E., Bu, J., Emrick, C.B., Zhang, N., & Li, M. (2014). Coping strategies for HIV-related stigma in Liuzhou, China. AIDS Behaviour. 18 (02), S 212 – S 220, doi: 10.1007/s10461-013-0662-2.

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Covid-19 Vaccination of Children: What will you do?

By Lisa Ann Wallace

Introduction- According to the Centers for Disease Control and Prevention (CDC) in March 2021, the United States (U.S.) had over 30 million cases and 547,296 deaths. A lot of change has occurred that is continuing to scar the emotions, affect, behavior, and mental psyche of everyone. Socialization and peer interactions are an important developmental milestone in school-age children (APA, 2021). Internationally, approximately 90% or 1-5 billion enrolled school-age children have been out of education due to the pandemic closures or restrictions (Lee). Covid-19 has led to adverse outcomes in communities with destruction, aggression or anxiety in people, deaths, grief, anxiety, depression, fear, and possible future long-term impacts that are still yet to be fully determined. A study by Brooks et al., found loss or limitations experienced by children are contributing to increased stress, fear, sedentary lifestyles, increasing obesity, depression, aggressive behaviors, substance abuse, suicides, boredom, cyberbullying, abuse, neglect, and family financial crisis.

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Introduction

According to the Centers for Disease Control and Prevention (CDC) in March 2021, the United States (U.S.) had over 30 million cases and 547,296 deaths. A lot of change has occurred that is continuing to scar the emotions, affect, behavior, and mental psyche of everyone. Socialization and peer interactions are an important developmental milestone in school-age children (APA, 2021).Internationally, approximately 90% or 1-5 billion enrolled school-age children have been out of education due to the pandemic closures or restrictions (Lee). Covid-19 has led to adverse outcomes in communities with destruction, aggression or anxiety in people, deaths, grief, anxiety, depression, fear, and possible future long-term impacts that are still yet to be fully determined. A study by Brooks et al., found loss or limitations experienced by children are contributing to increased stress, fear, sedentary lifestyles, increasing obesity, depression, aggressive behaviors, substance abuse, suicides, boredom, cyberbullying, abuse, neglect, and family financial crisis .

The CDC reports approximately 4.03 million children have tested positive for Covid-19, representing about 14% of all cases. In June 2021, the CDC reported children (5-17 years) account for less than 10% of all Covid-19 cases, a rate of 5.358/100,000 children in the population. There have been 119 total childhood deaths in age 0-4 years and 267 ages 5-18 years (CDC). Over 324 million doses of the Covid-19 vaccine has been given in the U.S. since December 2020 (CDC) with about 77 million people in the U.S. receiving at least one dose of the Covid-19 vaccine. As of July 2, 2021, 44% of children in the U.S. 15-16 years old have received at least one Covid-19 vaccine dose, with 35.2% are fully vaccinated (CDC). In children ages 12-15 years 31.5% have received at least one vaccine dose and 22.5% are fully vaccinated (CDC). Although children are a vulnerable population with limited immune systems, only 1-3% of children have been hospitalized with a death rate of only 0%-0.03% in 43 states reporting (AAP).

After rapid vaccine trials in March of children, in May 2021, the CDC and World Health Organization approved, recommended, and supported the administration of the Pfizer Covid-19 vaccine to children over 12 years of age. On August 23, 2021, the United States Food and Drug Association approved the Pfizer-BIoNTech COVID-19 vaccine to children 16 years and above (CDC). Although, beginning in April 2021, adverse vaccine side effects, such as pericarditis and myocarditis have been reported (CDC). The pericarditis and myocarditis vaccine adverse side effects reported were mostly found in males, 12-16 years of age and after the second Covid-19 vaccine dose, which if not recognized or treated could lead to blood clots, heart failure, or even death. Today, the CDC continues to site that the benefit of receiving the Covid-19 vaccine in children over 12 years of age outweighs the risks. Accuracy of the Data for the Vaccine Adverse Event Reporting System (VAERS) may also be delayed at least 4-6 weeks or even underreported impacting accuracy.

Nurses are a trusted profession with the unique position to help children and families through advocacy and providing factual evidence based practice guidelines to allow informed consent in each individual situation about vaccine administration and disease prevention in our children who hold our future. Handwashing, adequate hours of sleep, a well-balanced diet, and exercise/activities aid in promoting childhood wellness supported by evidence.

I believe that children are a blessing and gift from God. We have one life and each family should look at the evidence, involve their children, consult with their healthcare providers, and decide about childhood Covid-19 vaccination individually. The number of cases in Fall 2021 are increasing. The number of immigrants crossing over into the U.S. with positive COVID-19 are significant. The U.S. is a democracy with autonomy, which means families should be provided the facts and allowed to make their own healthcare decisions related to vaccinations without governmental influence with the science available. I urge each of you to look at all of the evidence-based practice information available on scholarly refereed sites. What will you do about vaccinating your children for Covid-19?

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A Review Article on Various Ayuvedic Approaches in the Management of Sthaulya (Obesity)

By Dr. O.P. Vyas, Dr. Nikita Mishra, Dr. Nimina Nanu Manikkoth & Dr. Muraree Girare

Abstract- A person having heaviness and bulkiness of the body due to extensive growth especially in *Udaradi* region is termed as "*Sthula*" and the state *(Bhava)* of *Sthula* is called "*Sthaulya*". *Sthaulya* or *Medorog* (obesity) is commonest metabolic disorders in affluent societies caused by irregular diet and sleep patterns, lack of physical activities, stress etc, and it is a direct result of modernization combined with lifestyle changes by exposing oneself to these factors. we unknowingly invited several diseases out of which *Sthaulya* is one which affects someone's social, physical, and mental features. *Acharya Charaka* has mentioned *Sthaulya* under *Santarpanajanya Vyadhi*. The present study deals with all the details of *Sthaulya* according to ayurvedic classics and its preventive methods like *Nidan Parivarjan*, therapeutic management along with medicine, diet, *Pathya* and *Apathya.*

Keywords: *sthaulya, santarpanjanita vyadhi, nidan parivarjan, pathya-apathya.*

GJMR-K Classification: *NLMC Code: WB 55.A9*

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Abstract- A person having heaviness and bulkiness of the body due to extensive growth especially in *Udaradi* region is termed as *"Sthula"* and the state *(Bhava)* of *Sthula* is called *"Sthaulya". Sthaulya* or *Medorog* (obesity) is commonest metabolic disorders in affluent societies caused by irregular diet and sleep patterns, lack of physical activities, stress etc, and it is a direct result of modernization combined with lifestyle changes by exposing oneself to these factors. we unknowingly invited several diseases out of which *Sthaulya* is one which affects someone's social, physical, and mental features. *Acharya Charaka* has mentioned *Sthaulya* under *Santarpanajanya Vyadhi*. The present study deals with all the details of *Sthaulya* according to ayurvedic classics and its preventive methods like *Nidan Parivarjan*, therapeutic management along with medicine, diet, *Pathya* and *Apathya.*

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I. Introduction

Acharya Charaka has included *Atisthoola* in eight varieties of impediment which are designed as *Astha Nindita purusha*.[1] *Atisthaulya* comprises one of them.

Acharya Charak mentioned that a person in whom excessive and abnormal increase of *Medodhatu* along with *Mamsadhatu* is found which results into pendulous appearance of buttocks, belly, breast and whose increased bulk is not matched by a corresponding increase in energy is called *Sthulapurusha*.[2] *Sthaulya*is a *Dushya* dominant *Vyadhi,* plays a major role in pathogenesis of *Sthaulya,* therefore it is important to know different aspects of *Meda*. Substance which has *Snigdha* property is called *Meda.* There are many oily substances in the body like *vasa Majja*.etc.

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Sthaulyaroga of *Ayurveda* comes under the heading of *Medoroga* which results due to dysfunction of *Medodhatvagni* (factors responsible for metabolism / nourishment of *Medodhatu*). *Ayurveda* also described *Sthaulya* as

1. *Kapha Pradhanaja*– predominantly caused due to vitiated *Kapha Dosha*
2. *Meda Pradoshaja*– *Meda* is *dhatu*/tissue which is predominantly affected
3. *Bahudosa Avastha*– Multi factorial conditions.
4. *Santarpanjanya Vyadhi*– Disease caused by due to defected anabolism/overnutrition.

a) Sthana and Swarupa of Meda Dhatu

1. *Poshya* (Immobile in nature)– which stored in *Medodharakala* ie; in its sites like., *Udara, Sphika, Stana, Gala, etc* and *Vasa (Mamsagata)* According to modern science, it can correlated with adipose tissue / fat.
2. *Poshak* (Mobile in nature)- which is circulated in whole body along with *Gatiyukta Rasa-Rakta Dhatu* for nourishing the *Poshya Meda Dhatu*/*Sneha*. According to modern science it can be correlated with cholesterol and lipids which are present in circulating blood.

II. Nidana (etiological factors)

The knowledge of *Nidan* not only aids the physician towards therapeutics but also in advising about *Pathyaapathya*. For easy management It is very important to know the *Nidana* of diseases.

Acharya Sushruta and *Vagbhat* have mentioned endogenous type of cause, *Vagbhat* has mentioned "*Ama"* as a causative factor. only *Charaka* has define *"Beejadosha"* as one of the causes besides other. In context with *Sthula,* exogenous causes are diet and whereas *Dosha, Dhatu, Mala, Srotas* etc. comes under the endogenous causes. Mainly four type of *Nidana* described in ayurvedic *Samhitas-*

1. *Aharatmaka Nidan* (Dietary factors)
2. *Viharatmak Nidan* (Functional factor)
3. *Manas Nidan* (psychological factor)
4. *Beejadosha* (Hereditary factors)

Role of Aharatmaka Nidana in Sthoulya– On the basis of *"Samanya Vishesh Siddhant'* that is ''*Sarvada*

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Sarvabhavanam Samanyam Vruddhi Karanam''[3] The excessive food consumption of similar substance *(Dravya Samanya),* similar quality *(Guna Samanya)* or similar in action *(Karma Samanya)* help in the over production of *dhatu.* In the same manner increase intake of these *Aharatmaka Nidana* which are described above overproduction of *medodhatu. Acharya Sushrut* has mentioned *''Rasnimmitameva Sthoulya Karhyam Cha''*[4] means *Sthaulya* and *Karshya* depends upon the quantity and quality of *Ahararasa. Ahararasa* plays a major role for increasing *Meda Dhatu* in *Sthaulya.*

Role of Viharatmaka Nidanin Sthaulya– All the *Aharatmaka Nidana* ultimately decrease physical activity, which aggravates *Kapha* and leads to *Meda* deposition. *Viharatmaka Nidan Avyayam, Sukhasana* etc. which possesses the qualities same as *Meda* which increases *Meda* in the body, *Divaswap* having *Snigdha* property leads to blockage of the micro channels of the body.

Role of Manas Vyaparain Sthaulya– Acharya Charak mentioned some psychogenic causes of *Sthaulya. ''Tatra Atisthoulya … Harshanityatvat Achintanat''*[5] *Harshnitya and Achinta* are two psychological factors mentioned by *Acharya Charaka* which are responsible for *Meda Vriddhi*. These factors are responsible for *Meda Vriddhi*. this type of psychological wellbeing and jolliness that person indulge more in worldly pleasure and excess energy stored in the form of *Meda*.Due to adaptation of modern lifestyles, a person has reduced his physical activity and instead of that the mental work is increased, as a result now a days the diseases caused by psychogenic factors are seen extensively more.

Role of Beejadosha in Sthaulya– Acharya Charaka has mentioned that *Beejadosha* plays a major role for *Medovriddhi*[6], defect of *Beejabhagavayava* that is the part of *Beeja* which resembles with genes may lead to defective development of that organ. also, *Bhavamishra* has mentioned that increased proportion of *Meda* and decreased development of *Sthool* but weak body. Moreover, overnutrition particularly with *Madhura* rasa during pregnancy is as a causative factor for birth of obese child which indicate role of hereditary factor in genesis of *Sthaulya.*[7]

III. Samprapti (pathogenesis)

a) Role of Agni in Sthaulya According to Ayurveda

Jatharagni is main responsible factor for digestion of food. In *Medoroga (Sthaulya)* due to obstruction of *Meda, Vata* remains in *Koshta* and causes *Tikshnagni.* here the question arise, how *Ama* formation can occur in the presence of *Tikshnagni. Chakrapani* and *Dalhana* have clarify this by giving explanation thatin the stage of *Tiksnagni*, person goes for *Adhyasana* and *Akal Bhojan Seven*, which leads to disturbance in *Agni* and subsequently formation of *Ama* may take place. Moreover, *Dalhana* has explained that in the *Sthaulya* formation of *ama* is more due to decrease level of *Medodhatavagni* than *Jathragni.*

As per *Vagbhata Pachakansa* present in each *Dhatu* is refered to *Dhatvagni. Usma* present in *Dhatu* is part of *Jatharagni* and is controlled by it. *Dhatavagnimandhya* of specific *Dhatavagni* causes *Vriddhi* of that *Dhatu* and vis.a.vis. In the state of *Hatavagnimandya Kshaya* of *Uttar Dhatu* take place.[8]

In the case of *Sthaulya Medodhatvagni Poshkansh* started at *Jathragni* level is vitiated, this *Poshak Ras* which comes in large quantities to *Meda Dhatu* slow down the *Medadhatavagni*. Due to continuous excess of nutrient, the work of *Medadhatvagni* reaches almost to its lowest level, which leads to the increases of *Meda* dhatu in their depot. In addition due to decreased production of *Sukshma* and *Sara* part at *Medadhatvagni* level the further *Asthi, Majja, Shukra* dhatu get less *Poshak Ras* due to this *Uttarottar Dhatu (Ashthi Majja Shukra)* is not formed properly.

In another word, due to etiological factors, there is increase in the fatty tissue in the body. This increased fatty tissue produces obstruction in various system. Specifically, this causes obstruction to *'Vata'*. This obstructed *Vata* starts wandering in abdominal cavity. It gives hyperstimulation to the digestive power *(Jatharagni)*. This causes more and quick digestion and absorption of food. As a result of this appetite is increased to satisfy this increased hunger the person goes on eating more and more. This leads to increase in fatty tissue and vicious circle goes on. Even though the digestive power in the stomach *(Jatharagni)* is increased, there is reduced digestive power at the tissue level. The digestive power responsible for the production of fatty tissue *(Medo Dhatwagni)* from the muscle tissue into fatty tissue does not take place properly. This causes excess faulty deposition of fat in the body and *Medoroga*is produced.[9]

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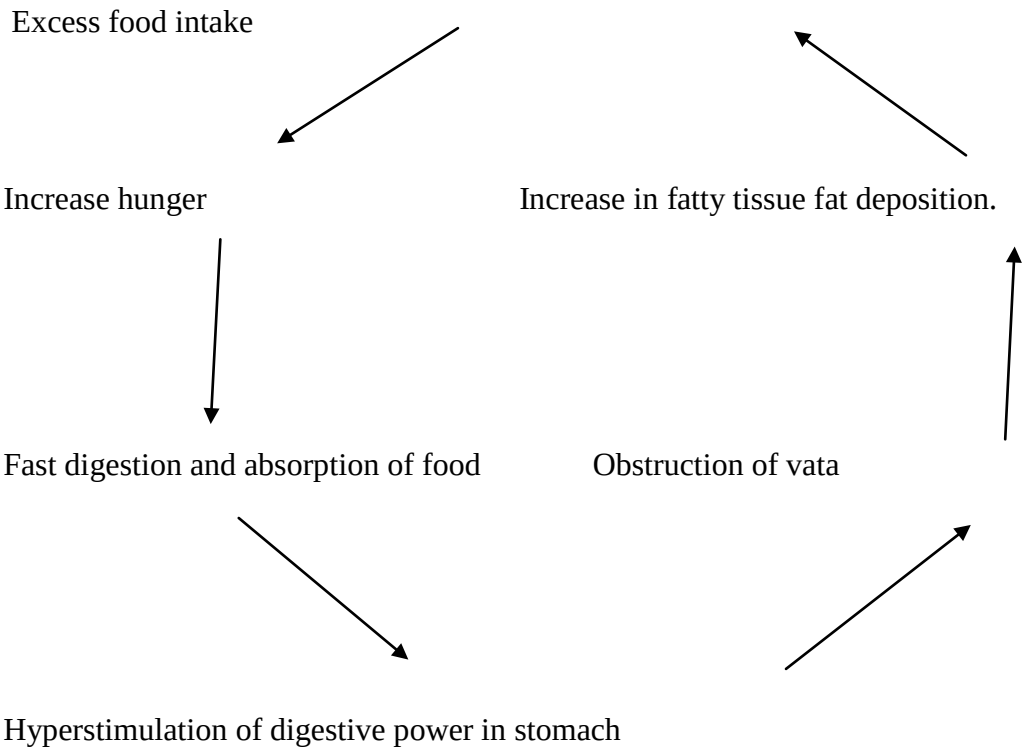

IV. Lakshana of Sthaulya (sign and Symptoms)

According to Charak, *Chala Sphika, Chala Udara, Chala Stana, Ayathopcayotsaha,* and *Atimeda Mansavruddhi* are obvious in all the patient of *Sthaulya.* hence these may be considered as cardinal symptoms or *PratyatmLakshan.*[10]

In *Astang Sangrah Vagbhata* also mention these *Lakshan of Sthaulya*[11]

1. *Kshudhavridhi* (Excessive hunger)
2. *Atitrishna* (Excessive thirst)
3. *Atishevida* (Excessive Sweating)
4. *Sharamjanya Swasa* (Breathlessness on mild exertion)
5. *Aatinindra* (Excessive sleep)
6. *Karyaodourblyata* (Difficulty to perform heavy work)
7. *Jadyatha* (Stishness)
8. *Alpaayu* (Short life span)
9. *Alpabala* (Decreased bony strength)
10. *Uatshahahani* (Inertness)
11. *Sharir Durgandhta* (Foul odour of the body)
12. *Gadgadtava* (Unclear voice)

- Ashtadosha of Sthula

Eight consequences of Sthaulya as described in *Charaka Samhita*[12]

1. *Aayushohrasa* (Decreasing life span)
2. *Javoparodha* (Slowness in movement)
3. *Kricchavyavayata* (Difficulty in sex)
4. *Daurbalya* (Weakness)
5. *Daurgandhyam* (Bad odour)
6. *Svedabadha* (Excessive sweating)
7. *Kshudatimatra* (Excessive hunger)
8. *Atipipasa* (Excessive thirst)

- Complications[13]

1. *Visarpa* (Erysepellas)
2. *Bhagandara* (Fistula in Ano)
3. *Jwara* (fever)
4. *Aatisar* (Diarrhoea)
5. *Prameha* (Diabetes)
6. *Arsha* (Piles)
7. *Shlipada* (Filariasis)
8. *Apachi* (Indigation)
9. *Kamla* (Jaundice)

- Classification

In *Ashtanga Hridaya* and *Ashtanga Sangraha Vagbhata* have been mentioned three types of *Sthaulya* i.e., *Adhika, Madhyama* and *Hina* with management point of view.

This classification can be correlated with modern as given below -

1. *Hina Sthaulya* (overweight)
   - B.M.I. 25-29.90 kg/m^2
   - Mild degree of overweight,
   - without any complication or secondary disease
   - less than four undesirable symptoms
   - duration of less than 1 year
2. *Madhyam Sthaulya* (Obese)
   - B.M.I. 30-40 kg. /m2
   - Moderate degree,
   - least complications without secondary disease,

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- less than 8 undesirable symptoms
- within duration of 1 to 5 years

3. *Adhika Sthaulya* (Very Obese)
   - B.M.I. > 40 kg. /m2 –)
   - Excessive degree, with complication and secondary disease
   - all 8 undesirable symptoms
   - more than 5 years duration

Chikitsa of Sthaulya (Management of Obesity)

In *Ayurveda, Sthoulya* comes under *Santarpanajanya, Medo Pradoshaja* and *Kapha Pradhana Vyadhi* where *Apatarpana* is the line of treatment.

''Guru Cha Aptarpan Chestham Shtaulanam Karsanam Prati''[14]

Nidan parivarjan

''Sankshepta Kriyayoga Nidan Parivarjanam''[15]

Nidan Parivarjan Chikitsa means avoiding all the *Aharatmaka, Viharatmaka, Manasika* and *Anya Nidan* responsible for the manifestation of diseases. Both *Charaka* and *Sushrut* have laid great emphasis on the principle of *Nidan Parivarjana. Sushrut* in particular has recommended *Nidan Parivarjan* as essential component in the management of any disorder.

Samshodhana Chikitsa (Purificatory procedures)

- *Vaman* (Therapeutic emesis)– *Vaman Karma* is specifically indicated to cure *Kapha* related diseases and disorders like obesity.
- *Virechan* (Therapeutic purgation).– *Virechana* is beneficial for *Sthaulya. Virechana* helps to initiate the weight loss mechanism in the body. *Virechana* being an appropriate *Shodhan* procedure is not only specific for the elimination of vitiated *Pitta Dosha* but also helps in the elimination of vitiated *Kapha* and *Vata* a where it is also indicated in *Sthoulya.*
- *Lekhan Vasti (Medicated enema)– Lekhan Vasti*, the name is self-explanatory hence *Lekhan* property reduces med and simultaneously pacifies *Vata Dosha* by affecting its main seat i.e *Pakvashaya.* Due to *Laghu, Ushna* and *Tikshna* properties of *Basti Dravya*, obstruction of channels may be broken down thus the morbid material from all over the body will expelled out breaking the pathogenesis of obesity. *Acharya Charaka* has mentioned *Lekhaniya Dashemani Dravyas*[16]– a group of 10 drugs, these drugs are 1. *Mustaka 2. Kustha 3. Haridra 4. Vaca 5. Ativisha 6. Katu Rohini 7. Chitraka 8. Chirabilva 9. Daruharidra 10. Haimvati (Karanj).*

Shamana Chikitsa (Palliative Treatment)

- *Langhan* (Fasting).- Only in initial stageif *Stha+*

Ulya caused due to *Adhyashan,* then *Langhan, Laghu Aahar, Alpa-Aahar* should be taken

- *Ama Pachan* (oral use of digestives to augment the fat metabolism).
- *Ruksha Udwartan* (Dry medicated powder massage).- Dry powder of herbs is used hence it is known as Ruksha Udvartana. Udvartana opens the circulatory channels, facilitates the metabolic activity and improves the complexion of skin.

Common classical preparations used in Sthaulya (obesity)[17]

1. *Vati– Aarogyavardhani Vati, Bhedani Vati*
2. *Churna – Triphala Churna, Trikatu Churna, Vidangadi Churna, Vacha Churna*
3. *Kwath– Mustadi Kwath, Agnimantha Kwath, Phaltrikadi Kwath*
4. *Asav Arista- Vidangasav, Lodhrasav*
5. *Loha- Vidangadiloha, Trayaushanloha*
6. *Guggul- Navak guggul, Amritadya guggul, Medohar Guggul*
7. *Rasayan– Shilajatu Rasayan, Guggulu Rasayan, Amlaki Rasayan*
8. *Akal Aushadh- Guggul, Shilajatu, Vacha, Haritaki, Bhivitaki, Amalaki, Guduchi, Nagarmoth, Vldang, Shunthi, Agnimantha.*

Yoga and exercise

Yoga Asana[18]*- Suryanamaskar, Pawanmuktasana, Bhujangasana, Shalbhasana, Dhanurasana, Pachimottanasana, Ardha Vakrasana, Halasana, Ardhachakrasana, Naukasana, Trikonasana, Veerbhadrasana, Ustrasana etc.*

Yogic breathing or Pranayama[18]

It is said in the yogic text *Hatha Yoga Pradeepika* and others that practice of pranayama make the body slim and fit. *Pranayama* can help to burn excessive fat in the body. There are two *pranayama* practices that are good for weight reduction– *Kapalabhati* and *Anulom Vilom Pranayama*.

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Pathya-Apathya[19]

Pathya Apathya Ahara

1. *Aharavarga* (food)	*Pathya* (Suitable)	*Apathya* (Unsuitable)
Shuka Dhanya(Food grain)	*Yava, Venuyava, Kodrava, Nivara*	*Godhuma, Navanna, Sali Shami Dhanya* (Pulses)
Shami Dhanya(Pulses)	*Mudga, Rajmasha, Kullatha, Masura, Adhaki*	*Masha, tila*
ShakaVarga (Vegetabbles)	*Vrintaka, Patrashaka, Patola*	*Madhuraphala*
Drava (liquid stuff)	*Takra, Madhu, Ushnodaka, Dugdha, tiltaila, Asava, Arishta*	*Ikshu, Navnita, Ghrita, Dadhi*
Mamsa(meat)	*Rohita Matsya*	*Anup, Audaka*

Pathya Apathya Vihar

Pathya	*Apathya*
Shrama (Hardwork)	*Sheetal Jala*
Jagarana (Late nights)	*Divaswapa* (Day sleeping)
Vyavaya (Sexual activity)	*Avyavaya* (less exercise and less indulgence in sexual activity)
Nitya Langhana (Regular use of Reducing therapy)	*Swapna Prasanga* (Excessive sleeping)
	Sukhashaiyya (Comfortable bedding)

V. Discussion

*Sthaulya*is considered as one of the *Santarpanjanya Vyadhi* with the involvement of mainly *Medodhatu* and *Kaphapradhanatridosh*. Excessive accumulation of *Kapha* and *Meda*with other factors eventually leads to *Sthaulya Roga*. line of treatment for *Sthula*is *Apatarpana* and *Langhana*, which can be done by *Shodhana* and *Shamana* Yoga therapy, Vyayam proper dietary and lifestyle modification can play crucial role in prevention of *Sthaulya. Acharya Charaka* has illustrated that *Krishata* is better than *Sthaulya* because when *Sthula Purusha* affected by disease suffers more due to it as compared to *Karshya. Kapha Prakriti* persons are more prone to become obese *(Sthula).*

References Références Referencias

1. *Vaidya Ravidatta Tripathi, Charak Samhita with vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Sutrasthana 21/3. p.300.*
2. *Vaidya Ravidatta Tripathi, Charak Samhita with vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Sutrasthana 21/9. p.301.*
3. *Vaidya Ravidatta Tripathi, Charak Samhita with Vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Sutrasthana 1/44. p.13.*
4. *Vaidya Ambikadutta Shastri, Susruta Samhita with Ayurved Tattvasandipika. Chaukhamba Sanskrit publication, Varanasi. 2012. Sutrasthana 15/37.*
5. *Vaidya Ravidatta Tripathi, Charak Samhita with vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Sutrasthana 21/4. p.300.*
6. *Vaidya Ravidatta Tripathi, Charak Samhita with Vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Sutrasthana 21/4. p.300.*
7. *Vaidya Ravidatta Tripathi, Charak Samhita with vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Shareersthana 8/21. p.780.*
8. *Asthangahrdaya of Vagbhata edited with the 'Vidyotini' hindi commentary by Kaviraja Atrideva Gupta, Chaukhambha prakashan Varanasi Edition reprint 2007, Sutasthan 11/34.*
9. *A textbook of Rog Nidan and Vikritivijnan, Dr. Rekha N jain Dr. N.Y. Thite.p.292.*

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10. *Vaidya Ravidatta Tripathi, Charak Samhita with vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Sutrasthana 21/9 p.301.*
11. *Vagbhata's Asthanga samgraha with hindi commentary by Kaviraj Atridev Gupta, Chowkhamba krishnadas academy Varanasi, 2005 sutrasthan 24/23-24.*
12. *Vaidya Ravidatta Tripathi, Charak Samhita with vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Sutrasthana 21/4 p.300.*
13. *Kaya Chikitsa, part 3, Prof Ajay Kumar Sharma, Varanasi: Chaukhambha Publicers, edition-2013, p.172.*
14. *Vaidya Ravidatta Tripathi, Charak Samhita with Vaidymanorama Hindi commentary. Chaukhamba Sanskrit pratishthan Delhi; 2013. Sutrasthana 21/20 p.303.*
15. *Susrutasamhita of Susruta with Nibandhasangraha Commentary of Shri Dalhanacharya, Chaukhambha Orientalia 7th editions 2002, Uttartantra 1/25. Pg.no.597.*
16. *Caraka Samhita (Agnivesh) Ayurveda Deepika Commentry by Cakrapanidutta, Chaukhamba surbharti prakashan, Varanashi, 2014, sutrashan 4/9 p.60.*
17. *Kaya Chikitsa, part 3, Prof Ajay Kumar Sharma, Varanasi: Chaukhambha Publicers, edition-2013, p.172-173.*
18. *http://www.yogamag.net/archives/1997/esep97/obesity.shtml, accessed on, 20/8/2018.*
19. *Kaya Chikitsa, part 3, Prof Ajay Kumar Sharma, Varanasi: Chaukhambha Publicers, edition-2013, p.178.*

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The High Fatality Rate of Health Care Staff in Africa as a Result of Covid-19: An Explanatory Study

By Kampala Mwape Phiri & Jeremy Ogbadu

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Abstract- *Background:* Two years ago the Coronavirus disease 2019 (Covid-19) was identified in Wuhan, China for the first time in December 2019 and since then it has unfolded throughout the globe inflicting the worldwide collapse and closure of international borders, health care facilities as well as disrupt all social activities. One in every of the area's that has been adversely affected is the health care system. The forceful results of Covid-19 on health care systems is overshadowed by its effect on economic activities, that has been put on attentiveness of many news platforms and media retailers. This has ensued very little or no applied statistical data on the various health care staff that have been and still being lost t Covid-19 pandermic.

Keywords: *Covid-19, WHO, Frontline worker, Healthcare stuff (HCS), Healthcare workers (HCW), Reproduction number (R0), Vaccine hesitancy.*

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The High Fatality Rate of Health Care Staff in Africa as a Result of Covid-19: An Explanatory Study

Kampala Mwape Phiri [α] & Jeremy Ogbadu [σ]

Abstract- ***Background:*** Two years ago the Coronavirus disease 2019 (Covid-19) was identified in Wuhan, China for the first time in December 2019 and since then it has unfolded throughout the globe inflicting the worldwide collapse and closure of international borders, health care facilities as well as disrupt all social activities. One in every of the area's that has been adversely affected is the health care system. The forceful results of Covid-19 on health care systems is overshadowed by its effect on economic activities, that has been put on attentiveness of many news platforms and media retailers. This has ensued very little or no applied statistical data on the various health care staff that have been and still being lost t Covid-19 pandermic. It can't go without mention that the health care system in African countries has done a disservice to its employees by not accurately keeping track of the various doctors, nurses, emergency medical technicians and Covid-19 initial responders (frontline workers) that have died as a result of infection due to many ineluctable factors like Inadequate PPE (Personal protecting instrumentality) equipment for healthy personal, Lack of essential instrumentality like filtering face piece respirators, face masks, hand sanitiser, gloves, as well as failure to stick to Covid-19 regulations.

Methods: The review applied literature resesrch of COVID-19 reports, WHO, Africa CDC, Independent newes sources and articles from Google schoolar.

Conclusion: Very little to no data from numerous health care managers and ministries has been provided regarding the happenings and consequences of Covid-19 on health care personal yet Covid-19 has to a degree exposed the failing and challenges currently exisiting within the many health care system in Africa, hence it's essential that Center for Disease Control and Prevention(CDC) and WHO ought to step in and regulate the central collection of significant data from health care ministries across Africa.

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Keywords

1. Covid-19
2. WHO
3. Frontline worker
4. Healthcare stuff (HCS)
5. Healthcare workers (HCW)
6. Reproduction number (R0)
7. Vaccine hesitancy

I. Introduction

Dr. Tedros Adhanom WHO Director-General revealed in a conference that a lot of health care workers have lost their lives as a result of Covid-19 pandermic[1]. The natural event hit the globe, exhausting and affecting each nation across the world in aplethro of ways .Different sectors faced challenges due to this such as industry shut down or halting, closure of international borders, Sports & recreation facilites, hyperlocal marketplaces, travel & business enterprise, dramatic thinning out of human, industrial production and transportation of goooods and services[2]. Although these areas have all faced great challenges, the most debilitating is faced by the healthcare professionals who are the frontrunners in the battle against this pandemic, who are rearly tested as a result of luck of testing kits in many hospitals [3]. Over time, the burden on the health care system particularly in the continent has been neglected and unprecedented. The pandemic caused by the novel Severe Acute Respiratory Syndrome (SARS-CoV-2) has caused loss of lives, accmpanied with a mess of uncomparable obstacles, like the shortage of efficacious drug mixtures for its treatment as well as increased demand in health care support items like beds, medication, masks, personal protecting equipment and sanitisers. Even with insufficient supply of important medical materials, the bulk of healthy care workers have managed to continue daily operations at a heavy cost. Frontline workers who are necessary in the fight against Covid-19 have been neglected, resulting in several of their affections forgotten and unresolved.

According to Fauci AS, the capability in transmission of the severe acute respiratory syndrome (SARS) is reliant on reproduction number(R0)[4],[5], which for Covid-19 stands at 2-2.5[6],[7]. Moreover, the

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reproduction number (R0) merely entails each contagious individual extent to infect a minimum of two/three individuals on contact [8] which is very high when one considers the factors highlighted above. Currently, health care workers are in an exceedingly state of distress, as little is done to shield them, despite being in contact with infectious Covid-19 carriers. In addition, they isn't any adequate statistics to accurately track and trace the impact of Covid-19 on the health care workers in the continent of Africa. Even though statistics on the fatal impact on health care personal is reported by numerous organisation like Bbc, Aljazeera and local media retailers, it isn't thought of as official information because it isn't statistically standardized and collected centrally.

II. Factors Attributed to the Increased Infection of Health Care Workers

The World Health Organization (WHO) survey revealved that about10,000 health workers across 40 countries are infected with Covid-19 and preliminary shows that in Africa healthcare infection make up more 10% of the generally population [WHO Africa,2020, *over 10000 health workers Africa infected with covid-19,* BRAZZAVILLE, viewd 30 july 2021, https://www.afro.who.int/news/over-10-000-health-workers-africa-infected-covid-19], furthermore Erdem et al reveals and comfirms that about 10,000 medical personal were infected by coronavirus reported by WHO in an independent research [9] . Additionally rapid infection of physicians and health workers has been mostly attributed to the subsequent six major factors: Impassable roads and penniless standards of living lead to inaccessibility of essential health materials and facilities [10], Inadequate PPE equipment for health personal, Lack of essential items like filtering face piece respirators (face masks), Hand sanitizer, Medical gloves, Inadequate testing kits [3] and a small number of frontline workers who attend to covid patients [11].According to WHO, Covid-19 cases amongst health care professionals have escalated by 203% resulting in an abrupt demand for more frontline workers [12],[13].

Further research has shown an increase in mental health related complications such as stress and anxiety has been known collectively of the foremost distinguished mental state suffered by health care professionals. This emotional and mental strain amongst health care workers has resulted in them being inefficient to attend to Covid-19 related critically ill patients because of the perils of exposure and threat to there own health[2],[13],[14]. Shanafelt, et al attributed this to seven important provenances in health care workers that have abetted mental health complications these factors are support for family needs as work hours and demands increase eg (food, hydration, lodging and transportation), uncertainty that the organization will cover the medical bills in an event they develop an infection, being exposed to COVID-19 at work and taking the infection home to their family, not having speedy access to testing if they develop COVID-19 symptoms, no risk allowance, lack of non-invasive ventilation, limited access to high-flow nasal cannula and bag-mask ventilation [14],[15],[16]. This has resulted in high cases of involuntary retiremet of healthcare workers as a result fear of infection[2].

III. The Standing of African Health Care System: Implications within the Covid-19 era

According to a report by WHO on 3 june 2021, the regional director for Africa, Dr. Matshidiso Moeti warned that "Many African hospitals and clinics are still far from ready to cope with a huge rise in critically-ill patients," [WHO, MEDICALXPRESS, 2021, *Africa not ready for imminent third coronavirus wave: WHO*, viewed 10 july 2021, https://medicalxpress.com/news/2021-06-africa-ready-imminent-coronavirus.html]. The statement confirms that across African, the healthcare system has been primary the most unrevamped sector of the many countries, despite numerous countries experiencing severe epidermics like Ebola, Measles, Meningitis and cholera [17]. Despite this, adaptation and state of vigilance for future epidemics and pandemics are terribly slow and unresponsive. Thus, COVID-19 exposed an enormous deficit in health services like preventative care, prenatal care, physical and occupational therapy, nutritional support, preventative care, laboratory and diagnostic care and most significantly pharmaceutical care, Furthermore Paintsil E et al accredited the drawbacks of Africa's healthcare system due to the lack of unyielding implementation of the International Health Regulations (IHR) tenets of 2005 [18]. The failure of full implementation of the IHR has contributed to the breaches in paramount polices such as finance, points of entry, human resource capability, preparedness, risk communication, surveillance, potential hazards, laboratory and legislation which are all essential in the running of any health care institutions [18]in addition strick observations to these regulation would have cushioned the Covid-19 impact on numerous health care institutions across africa. Even though many heatthcare systems are trying so hard to down play the Covid-19 effects, its catastrophic impact is felt on several areas of the hospital such as inadequate infrasruction eg bed space, shortage of intensive care units, shortatge of ventilators ,shortage of oxygen, salary cuts, skrikes[19] and limited Covid-19 testing kits [3].

In an attempt to stabilize the already vulnaerably heathcare system, many African countries have taken

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different approaches to moderate the effect by increasing work force, increasing inpatient patient capcity, intensifying of testing of citizens, introduction of universal health coverage and providing of vaccines for all health care workers [20]. Event with the introduction of vaccine, has been meet by a plethora healthcare workers with a lot confrontation and debates. Frontline workers have argued that mandatory vaccination for all health care workers is not the best approach to curb the spread if COVID-19, with the phrase "no jab, no job" this has lead to even a nuch larger outcry and legal action taken by heath care workers against their management [21].

Vaccine hesitancy is still a relevant issue by numerous nurses, doctors and public unions that have birthed the argument that these novel vaccines could themselves cause a possible risk or hazard hence leading to an unwillingness of health cares to take the vaccine even in light of the current situation [22], [21],[23, 24], furthermore Woolf K et al discovered that hesitancy to the vaccine was based on, safety concerns due to the speed of vaccine development, lack of ethnic diversity in vaccine studies, confusing and conflicting information [25], in addition Woolf K et al further explained that other self-determining cause of the hesitancy in vaccination was due to higher score on COVID-19 conspiracy beliefs scale, lower trust in employer, lack of influenza vaccine uptake in the previous season, previous COVID-19, and pregnancy [25]. Yet scientists have assured the overall public that every vaccine is safe by using vaccine Adverse Event Reportage System (VAERS) commonly known as Vsafe, which is a monitoring system established by Center for Disease Control and Prevention specifically for the COVID-19 vaccination program [22],[26].

IV. Conclusion

Major changes ought to be created regarding the health care system in the continent. These changes might be the difference between life and death for healthcare works. Itemised below are submissions that might health diminish the death of health and strengthen health care system from current and future epidermics.

1. WHO should setup have health correspondent offices in every country in Africa. This office will be responsible for central collection data of covid related deaths of heath workers across the country. in addition there is a requirement for developing cheap and accommodative tracing apps, which will be distributed in every hospital to facilliate easy systematic collection of information and data. This will help WHO keep track of all the health worker associated death that might occcure.
2. African countries ought to establish a roboost industrial facility that will be incharge of carry out epidermic relatated research.
3. In addition Countries have to be compelled to be a lot of ready for epidemics and pandemics by updating the follow imporve safety conditons, updrade of infrasarrtucture and equipment, in addition employing of more workers will help reduce strain in hospitals
4. WHO ought to introduce obligatory bimonthly tests for all frontline staff.

It is solely through strategic management that the loss of valuable health care personal are going to be avoided. Improving health care system is the only way you are assured of protecting the health care worker from sudden infection and in addition imporving of data collection in every hospital will help further improve the call to attention the death of health workers.

References Références Referencias

1. World Health, O., *Keep health workers safe to keep patients safe: WHO.* Geneva: WHO.
2. Mbunge, *E., Effects of COVID-19 in South African health system and society: An explanatory study.* Diabetes & Metabolic Syndrome: Clinical Research & Reviews. 14(6): p. 1809-1814.
3. Adepoju, P., *Africa's struggle with inadequate COVID-19 testing.* The Lancet Microbe. 1(1): p. e12.
4. Zhao, S., et al., *Serial interval in determining the estimation of reproduction number of the novel coronavirus disease (COVID-19) during the early outbreak.* Journal of travel medicine. 27(3): p. taaa033.
5. Najafimehr, H., et al., *Estimation of basic reproduction number for COVIDâ€‌19 and the reasons for its differences.* International journal of clinical practice. 74(8): p. e13518.
6. Fauci, A.S., H.C. Lane, and R.R. Redfield, *Covid-19â€"navigating the uncharted,* Mass Medical Soc.
7. Liu, Y., et al., *The reproductive number of COVID-19 is higher compared to SARS coronavirus.* Journal of travel medicine.
8. Dashraath, P., et al., *Coronavirus disease 2019 (COVID-19) pandemic and pregnancy.* American journal of obstetrics and gynecology.
9. Erdem, H. and D.R. Lucey, *Healthcare worker infections and deaths due to COVID-19: A survey from 37 nations and a call for WHO to post national data on their website.* International Journal of Infectious Diseases. 102: p. 239.
10. El-Sadr, W.M. and J. Justman, *Africa in the Path of Covid-19.* New England Journal of Medicine. 383(3): p. e11.
11. Wadvalla, B.-A., *How Africa has tackled covid-19.* bmj. 370.
12. Blau, F.D., J. Koebe, and P.A. Meyerhofer, *Who are the Essential and Frontline Workers?,* National Bureau of Economic Research.

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13. Jecker, N.S., A.G. Wightman, and D.S. Diekema, *Prioritizing frontline workers during the COVID-19 pandemic.* The American Journal of Bioethics. 20(7): p. 128-132.
14. Chersich, M.F., et al., *COVID-19 in Africa: care and protection for frontline healthcare workers.* Globalization and Health. 16: p. 1-6.
15. Shanafelt, T., J. Ripp, and M. Trockel, *Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic.* Jama. 323(21): p. 2133-2134.
16. Lai, J., et al., *Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019.* JAMA network open. 3(3): p. e203976-e203976.
17. Talisuna, A.O., et al., *Spatial and temporal distribution of infectious disease epidemics, disasters and other potential public health emergencies in the World Health Organisation Africa region, 2016â€"2018.* Globalization and Health. 16(1): p. 1-12.
18. Paintsil, E., *COVID-19 threatens health systems in sub-Saharan Africa: the eye of the crocodile.* The journal of clinical investigation. 130(6).
19. Lone, S.A. and A. Ahmad, COVID-19 pandemic â€" an African perspective. Emerging Microbes & Infections. 9(1): p. 1300-1308.
20. Haviari, S., et al., *Vaccination of healthcare workers: a review.* Human vaccines & immunotherapeutics. 11(11): p. 2522-2537.
21. Stokel-Walker, C., *Covid-19: The countries that have mandatory vaccination for health workers.* bmj. 373.
22. Schwarzinger, M.I., et al., *COVID-19 vaccine hesitancy in a representative working-age population in France: a survey experiment based on vaccine characteristics.* The Lancet Public Health.
23. Bunch, L. *A tale of two crises: Addressing Covid-19 vaccine hesitancy as promoting racial justice*. in *HEC forum*: Springer.
24. Ekwebelem, O.C., et al., *COVID-19 vaccine rollout: will it affect the rates of vaccine hesitancy in Africa?* Public Health.
25. Woolf, K., et al., *Ethnic differences in SARS-CoV-2 vaccine hesitancy in United Kingdom healthcare workers: Results from the UK-REACH prospective nationwide cohort study.* The Lancet Regional Health-Europe: p. 100180.
26. Madhi, S.A., et al., *Safety and efficacy of the ChAdOx1 nCoV-19 (AZD1222) Covid-19 vaccine against the B. 1.351 variant in South Africa.* MedRxiv.

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Plagiarism is not acceptable in Global Journals submissions at all.

Plagiarized content will not be considered for publication. We reserve the right to inform authors' institutions about plagiarism detected either before or after publication. If plagiarism is identified, we will follow COPE guidelines:

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- Words (language)
- Ideas
- Findings
- Writings
- Diagrams
- Graphs
- Illustrations
- Lectures

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- Printed material
- Graphic representations
- Computer programs
- Electronic material
- Any other original work

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2. Drafting the paper and revising it critically regarding important academic content.
3. Final approval of the version of the paper to be published.

Changes in Authorship

The corresponding author should mention the name and complete details of all co-authors during submission and in manuscript. We support addition, rearrangement, manipulation, and deletions in authors list till the early view publication of the journal. We expect that corresponding author will notify all co-authors of submission. We follow COPE guidelines for changes in authorship.

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Unless specified in the notification, the Editorial Board's decision on publication of the paper is final and cannot be appealed before making the major change in the manuscript.

Acknowledgments

Contributors to the research other than authors credited should be mentioned in Acknowledgments. The source of funding for the research can be included. Suppliers of resources may be mentioned along with their addresses.

Declaration of funding sources

Global Journals is in partnership with various universities, laboratories, and other institutions worldwide in the research domain. Authors are requested to disclose their source of funding during every stage of their research, such as making analysis, performing laboratory operations, computing data, and using institutional resources, from writing an article to its submission. This will also help authors to get reimbursements by requesting an open access publication letter from Global Journals and submitting to the respective funding source.

Preparing your Manuscript

Authors can submit papers and articles in an acceptable file format: MS Word (doc, docx), LaTeX (.tex, .zip or .rar including all of your files), Adobe PDF (.pdf), rich text format (.rtf), simple text document (.txt), Open Document Text (.odt), and Apple Pages (.pages). Our professional layout editors will format the entire paper according to our official guidelines. This is one of the highlights of publishing with Global Journals—authors should not be concerned about the formatting of their paper. Global Journals accepts articles and manuscripts in every major language, be it Spanish, Chinese, Japanese, Portuguese, Russian, French, German, Dutch, Italian, Greek, or any other national language, but the title, subtitle, and abstract should be in English. This will facilitate indexing and the pre-peer review process.

The following is the official style and template developed for publication of a research paper. Authors are not required to follow this style during the submission of the paper. It is just for reference purposes.

Manuscript Style Instruction (Optional)

- Microsoft Word Document Setting Instructions.
- Font type of all text should be Swis721 Lt BT.
- Page size: 8.27" x 11'", left margin: 0.65, right margin: 0.65, bottom margin: 0.75.
- Paper title should be in one column of font size 24.
- Author name in font size of 11 in one column.
- Abstract: font size 9 with the word "Abstract" in bold italics.
- Main text: font size 10 with two justified columns.
- Two columns with equal column width of 3.38 and spacing of 0.2.
- First character must be three lines drop-capped.
- The paragraph before spacing of 1 pt and after of 0 pt.
- Line spacing of 1 pt.
- Large images must be in one column.
- The names of first main headings (Heading 1) must be in Roman font, capital letters, and font size of 10.
- The names of second main headings (Heading 2) must not include numbers and must be in italics with a font size of 10.

Structure and Format of Manuscript

The recommended size of an original research paper is under 15,000 words and review papers under 7,000 words. Research articles should be less than 10,000 words. Research papers are usually longer than review papers. Review papers are reports of significant research (typically less than 7,000 words, including tables, figures, and references)

A research paper must include:

a) A title which should be relevant to the theme of the paper.
b) A summary, known as an abstract (less than 150 words), containing the major results and conclusions.
c) Up to 10 keywords that precisely identify the paper's subject, purpose, and focus.
d) An introduction, giving fundamental background objectives.
e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition, sources of information must be given, and numerical methods must be specified by reference.
f) Results which should be presented concisely by well-designed tables and figures.
g) Suitable statistical data should also be given.
h) All data must have been gathered with attention to numerical detail in the planning stage.

Design has been recognized to be essential to experiments for a considerable time, and the editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned unrefereed.

i) Discussion should cover implications and consequences and not just recapitulate the results; conclusions should also be summarized.
j) There should be brief acknowledgments.
k) There ought to be references in the conventional format. Global Journals recommends APA format.

Authors should carefully consider the preparation of papers to ensure that they communicate effectively. Papers are much more likely to be accepted if they are carefully designed and laid out, contain few or no errors, are summarizing, and follow instructions. They will also be published with much fewer delays than those that require much technical and editorial correction.

The Editorial Board reserves the right to make literary corrections and suggestions to improve brevity.

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Format Structure

It is necessary that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

All manuscripts submitted to Global Journals should include:

Title

The title page must carry an informative title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) where the work was carried out.

Author details

The full postal address of any related author(s) must be specified.

Abstract

The abstract is the foundation of the research paper. It should be clear and concise and must contain the objective of the paper and inferences drawn. It is advised to not include big mathematical equations or complicated jargon.

Many researchers searching for information online will use search engines such as Google, Yahoo or others. By optimizing your paper for search engines, you will amplify the chance of someone finding it. In turn, this will make it more likely to be viewed and cited in further works. Global Journals has compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Keywords

A major lynchpin of research work for the writing of research papers is the keyword search, which one will employ to find both library and internet resources. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining, and indexing.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy: planning of a list of possible keywords and phrases to try.

Choice of the main keywords is the first tool of writing a research paper. Research paper writing is an art. Keyword search should be as strategic as possible.

One should start brainstorming lists of potential keywords before even beginning searching. Think about the most important concepts related to research work. Ask, “What words would a source have to include to be truly valuable in a research paper?” Then consider synonyms for the important words.

It may take the discovery of only one important paper to steer in the right keyword direction because, in most databases, the keywords under which a research paper is abstracted are listed with the paper.

Numerical Methods

Numerical methods used should be transparent and, where appropriate, supported by references.

Abbreviations

Authors must list all the abbreviations used in the paper at the end of the paper or in a separate table before using them.

Formulas and equations

Authors are advised to submit any mathematical equation using either MathJax, KaTeX, or LaTeX, or in a very high-quality image.

Tables, Figures, and Figure Legends

Tables: Tables should be cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g., Table 4, a self-explanatory caption, and be on a separate sheet. Authors must submit tables in an editable format and not as images. References to these tables (if any) must be mentioned accurately.

Figures

Figures are supposed to be submitted as separate files. Always include a citation in the text for each figure using Arabic numbers, e.g., Fig. 4. Artwork must be submitted online in vector electronic form or by emailing it.

Preparation of Eletronic Figures for Publication

Although low-quality images are sufficient for review purposes, print publication requires high-quality images to prevent the final product being blurred or fuzzy. Submit (possibly by e-mail) EPS (line art) or TIFF (halftone/ photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Avoid using pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings). Please give the data for figures in black and white or submit a Color Work Agreement form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution at final image size ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs): >350 dpi; figures containing both halftone and line images: >650 dpi.

Color charges: Authors are advised to pay the full cost for the reproduction of their color artwork. Hence, please note that if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a Color Work Agreement form before your paper can be published. Also, you can email your editor to remove the color fee after acceptance of the paper.

Tips for writing a good quality Medical Research Paper

1. Choosing the topic: In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

2. Think like evaluators: If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

3. Ask your guides: If you are having any difficulty with your research, then do not hesitate to share your difficulty with your guide (if you have one). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work, then ask your supervisor to help you with an alternative. He or she might also provide you with a list of essential readings.

4. Use of computer is recommended: As you are doing research in the field of medical research then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

5. Use the internet for help: An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow here.

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6. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right? It is a good habit which helps to not lose your continuity. You should always use bookmarks while searching on the internet also, which will make your search easier.

7. Revise what you wrote: When you write anything, always read it, summarize it, and then finalize it.

8. Make every effort: Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

9. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

10. Use proper verb tense: Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

11. Pick a good study spot: Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

12. Know what you know: Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice.

Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. Arrangement of information: Each section of the main body should start with an opening sentence, and there should be a changeover at the end of the section. Give only valid and powerful arguments for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

16. Multitasking in research is not good: Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

18. Go to seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.

19. Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

20. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

21. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

22. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

23. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.

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Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.

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Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."

Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

The Administration Rules

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

Segment draft and final research paper: You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

Written material: You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.

Criterion for Grading a Research Paper (Compilation) by Global Journals

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals.

Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

INDEX

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