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# Knowledge and Attitude Regarding Risk Factors of Cardiovascular Diseases among Baghdad University Students

Haider Mohammed Majeed<sup>1</sup>, Ahmed Flieh Hassan<sup>2</sup>, Nasseem Hadi kamel<sup>3</sup>,  
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## ABSTRACT

**Introduction:** Cardiovascular diseases (CVDs) greatly vary within countries. Low and middle-income countries (LMICs) and vulnerable communities of high-income countries (HIC) share disproportionately higher burden.

**Objectives:** To explore the level of knowledge and attitude of Baghdad university students concerning risk factors for cardiovascular diseases.

**Methodology:** A cross-sectional design study utilizing a stratified random sampling method. Students of all colleges of Baghdad University (BU) in Baghdad city were included. The respondents were randomly selected from each college. The sample size was 200. Knowledge, attitude questionnaire was developed and distributed to the respondents involved. The data collected was analyzed using SPSS version 26.0.

**Results:** The majority of the study were female who accounted for (65.5%) of the total participants while male constituted (34.5%). Most of the study participants (35%) were ages between 20 and 21 years. Study participants' distribution in equal forms on colleges twenty-five percent for each college. 32.5% of the students were first class. Ninety three percent of the students were single and the remainder was married. Majority (89%) lived in urban areas while the rest (11%) lived in rural areas.

**Conclusions:** Although more than half of the current study participants had poor knowledge and positive attitude about CVD, there is not satisfactory. The knowledge of CVD symptoms and risk factors is below optimal levels regarding risk factors for cardiovascular diseases, as well as results shows overall students have positive attitude toward preventive measurement about risk factors of cardiovascular needs targeted national campaigns about CVD according to the identified predictors of CVD to prevent and to alleviate the complications due to CVDs.

**Keywords:** Knowledge; Attitude; Students; Risk Factors for Cardiovascular Diseases.

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## INTRODUCTION

Cardiovascular diseases (CVDs) are a set of heart and blood vessel disorders, including Coronary heart disease (CHD), Cerebrovascular disease, peripheral arterial disease, congenital heart disease, rheumatic heart disease, deep vein thrombosis and pulmonary embolism.<sup>1</sup> The World Health Organization (WHO) has estimated that CVD contributed to 32% of deaths globally and interestingly 85% of the deaths were due to



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heart attacks and stroke.<sup>2</sup> Furthermore, most of the deaths due to CVD were reported in middle and low-income countries. It is projected that by 2030 more than 22.2 million individuals will die annually.<sup>3,4</sup> The CVDs were associated with the disposition of fatty acids in the arteries, more commonly known as atherosclerosis and increased risk of blood clots, thereby the destruction of the arteries in the brain, heart, kidneys and eyes among the patients. There were four main types of CVD according to NHS, which include coronary heart disease (for example, angina, heart attacks and heart failure) stroke and transient ischemic attacks (TIAs), peripheral arterial disease and aortic diseases.<sup>5</sup> The strong association between behavioral risk factors and CVD onset is widely known, yet substantial potential lies in the prevention, screening and detection of cardiovascular risk factors.<sup>6,7</sup> This plan defined targets for 2025, including a reduction of smoking (30%), hypertension (25%) and no further increase in diabetes or obesity. India is also playing a pivotal role in terms of reaching global CVD targets as defined in the WHO's Global Action plan for the prevention and control of NCDs, given the projected future growth and aging of the population.<sup>8</sup> However, it is unclear how the knowledge of CVD symptoms and modifiable risk factors vary among students with existing CVD and those with CVRFs, as community-based data are not available so far for major CVRFs and heart attack and stroke symptoms. Therefore, it is essentially important to assess the CVD knowledge among the students to create more awareness about the disease, thereby preventing the possible adverse outcomes associated with the Risk of CVD. Furthermore, studies on knowledge of CVD risk factors and its primary prevention practices among the students are rare in Iraq and other international countries. The comprehension of many elements of CVD disease among university students in Iraq has not been the subject of any research. Therefore, the purpose of this study was to assess the knowledge and attitude of CVD risk factors and its primary prevention practices among the students.

## MATERIALS AND METHODS

A cross-sectional descriptive and analytical study to assess the knowledge and attitude regarding risk factors of cardiovascular diseases among undergraduate of Baghdad University, Iraq. This study was conducted at Bagdad University between December, 2023 up to the end of March 2024. A tool of knowledge, attitude questionnaire was developed and distributed to the participants

in this study. The questionnaire was validated by conducting the pre-testing among 20 students in a pilot study. The content validity of the questionnaire was verified by expert of faculty of nursing. The questionnaires were distributed to the selected undergraduate students of all the four colleges in Baghdad University. Baghdad city; namely the college of arts, college of Languages, college of Islamic Sciences, college of Ibn-Rushd, given some interval time and collected back after they have completed the questionnaire. The stratified random sampling method was utilized in selecting the participants. The inclusion criteria for the participants were age of 18 years old and above of both genders, male and female, which include Year 1 to Year 4 from each faculty. The sample size calculated was 200, inclusive of the 10% non-response rate. Proportional allocation from all grade levels (1 to 5 or 1 to 6 in all colleges). The response a total of 200 undergraduate students were included in this study distributed as follows: College of Arts (50), College of Languages (50), College of Islamic Sciences (50) and College of Ibn-Rushd (50). The questionnaire consisted of three major parts. The first part was the demographic factors such as age, sex, college, year of study and residence. The second part was close-ended questions on knowledge concerning CVD risk factors, the component knowledge test consisted of 25 closed questions, as follows: 25 affirmations, for which an "X" should be marked for one of the possible alternatives, (Know), (I do not know) (know it was considered as a correct question, (I do not know false it was considered as a incorrect question answered. The third part consists of the attitude questions towards the risk factors of CVD using the likert-scale type of questions. It had three choices ranging from "Strongly Agree" to "Disagree" items. The level of knowledge was ranked into two levels; (0-0.49) are poor score knowledge, (0.50-1) are good score knowledge and the level of attitude was ranked into three levels; (66.67- 77.78) are poor level, (77.79 - 88.89) are moderate level and (88.90 - 100) are high level. All the data that had been collected was analyzed using Statistical Package for Social Science (SPSS) version 26.0.

## RESULT

The majority of the comprised were female who accounted for (65.5%) of the total participants while male constituted (34.5%). Most of the study participants (35%) were age between 20 and 21 years old. Study participants' distribution in equal forms on colleges twenty-five percent for each



college (32.5%) of the students were first class. Ninety three percent of the students were single and the remainder was married. Majority (89%) lived in urban areas while the rest (11%) lived in rural areas as showed in Table 1.

**Table 1:** Distribution of the Studied Sample According to Socio-Demographical Characteristics Variables

				N=200 Student
SDCv.	Groups	Frequency	Percent	Cumulative %
<b>Gender</b>	Male	69	34.5	34.5
	Female	131	65.5	100.0
	Total	200	100.0	
<b>Age Groups (Years)</b>	18 – 19	54	27.0	27.0
	20 – 21	70	35.0	62.0
	22-23	61	30.5	92.5
	24 & Above	15	7.5	100.0
	Total	200	100.0	
<b>Faculty</b>	Arts	50	25.0	25.0
	Languages	50	25.0	50.0
	Islamic Sciences	50	25.0	75.0
	Ibn-Rushd	50	25.0	100.0
	Total	200	100.0	
<b>Academic (year)</b>	First Stage	65	32.5	32.5
	Second Stage	51	25.5	58.0
	Third Stage	32	16.0	74.0
	Fourth Stage	52	26.0	100.0
	Total	200	100.0	
<b>Marital Status</b>	Single	186	93.0	93.0
	Married	14	7.0	100.0
	Total	200	100.0	
<b>Residence</b>	Urban	178	89.0	89.0
	Rural	22	11.0	100.0
	Total	200	100.0	

Frequency, Percent, Cumulative percent

Table 2 indicated that students had poor knowledge level concerning risk factors for cardiovascular diseases, which indicated based on total mean of score (MS) which was (0.46).

**Table 2:** The mean of score of students knowledge concerning risk factors for cardiovascular diseases

Items	Resp.	F	%	MS	SD	A.D
Smoking is main cause for CVD	Know	198	.99	.99	1.00	Pass
	Don't know	2	1.0			
Alcohol is one the causes for CVD	Know	113	56.5	57.	.497	Pass
	Don't now	87	43.5			
High blood pressure increases risk CVD	Know	146	73.0	73.	445.	Pass
	Don't know	54	27.0			
Hypercholesterolemia is one of the causes for CVD	Know	133	66.5	.67	.473	Pass
	Don't know	67	33.5			
Individuals who suffer diabetes mellitus are at more risk for CVD	Know	114	57.0	57.	.496	Pass
	Don't know	86	43.0			

Table cont...

Obesity is a risk factor of CVD	Know	116	58.0	.58	.495	Pass
	Don't know	84	42.0			
Pattern of unhealthy diets	Know	91	45.5	.46	.499	Fail
	Don't know	109	54.5			
High level of density lipoprotein	Know	93	46.5	46.	500.	Fail
	Don't know	107	53.5			
Physical inactivity	Know	48	24.0	.24	.428	Fail
	Don't know	152	76.0			
Stress	Know	71	35.5	.36	.480	Fail
	Don't know	129	64.5			
CVD is the leading cause of death in world	Know	80	40.0	.40	.491	Fail
	Don't know	120	60.0			
Walking is type of exercise to be a prevention CVD	Know	86	43.0	43.	496.	Fail
	Don't know	114	57.0			
Perform daily exercise can prevent CVD	Know	108	54.0	.54	.500	Pass
	Don't know	92	46.0			
Eating fruits or vegetable is able to prevent from CVD	Know	104	52.0	.52	.501	Pass
	Don't know	96	48.0			
Avoid drinking alcohol decreases the risk of getting heart disease	Know	137	68.5	.69	.466	Pass
	Don't know	63	31.5			
Tobacco cessation prevent the risk of getting heart disease	Know	103	51.5	.51	.501	Pass
	Don't know	97	48.5			
Prayer can help to reduce stress	Know	91	45.5	46.	499.	Fail
	Don't know	109	54.5			
Prime wherefores of heart attacks is stress	Know	99	49.5	.50	.501	Pass
	Don't know	101	50.5			
BMI of more than 30 is considered as obese	Know	107	53.5	.54	.500	Pass
	Don't know	93	46.5			
Polyunsaturated fats are healthier for the heart than the saturated fats	Know	51	25.5	.25	.437	Fail
	Don't know	149	74.5			
Eating a lot of red meat increases heart disease risk	Know	39	19.5	.20	.397	Fail
	Don't know	161	80.5			
Taking an aspirin each day decreases the risk of getting heart disease	Know	52	26.0	.26	.440	Fail
	Don't know	148	74.0			
Dietary fiber lowers blood cholesterol	Know	62	31.0	.31	.464	Fail
	Don't know	138	69.0			
Most cholesterol in eggs found in the yolk	Know	15	7.5	.08	.264	Fail
	Don't know	185	92.5			
HDL refers to good cholesterol and LDL refers to bad cholesterol	Know	36	18.0	.18	.385	Fail
	Don't know	164	82.0			
Total	Know	2293	45.86	.46		
	Don't know	2707	54.14			

(A.D.): Assessment Degree, M.S = mean of score [(0 -.49) = fail (F); (0.5-1) = Pass (P)]

Table 3 indicated that students had positive attitudes concerning risk factors, with respect to the total relative sufficiency (RS) which was (81.6%) moderate level of attitude.

**Table 3:** The mean of score of students attitudes concerning risk factors for cardiovascular diseases

Items	Resp.	No	%	MS	RS	A.D
I should be doing exercise to maintain a healthy lifestyle	Strong agree	139	69.5	2.68	89.3	H
	Agree	59	29.5			
	Disagree	2	1.0			
I know smoking is bad for health	Strong agree	130	65.0	2.62	87.3	H
	Agree	63	31.5			
	Disagree	7	3.5			
I should maintain my weight according to my body mass index	Strong agree	139	69.5	2.68	89.3	H
	Agree	59	29.5			
	Disagree	2	1.0			
I should take less oily food for healthy lifestyle	Strong agree	130	65.0	2.62	89.3	H
	Agree	63	31.5			
	Disagree	7	3.5			
Taking a healthy diet maybe reduces my chances of have CVD	Strong agree	101	50.5	2.44	81.3	M
	Agree	87	43.5			
	Disagree	12	6.0			
Exercising for 30 minutes most days is one of the preferable roads for me to ban heart diseases	Strong agree	112	56.0	2.47	82.3	M
	Agree	70	35.0			
	Disagree	18	9.0			
Control on blood pressure decrease my chances of having a heart diseases	Strong agree	114	57.0	2.50	83.3	M
	Agree	73	36.5			
	Disagree	13	6.5			
I should avoid eating fast food during travel and eating out with friends	Strong agree	98	49.0	2.44	81.3	M
	Agree	93	46.5			
	Disagree	9	4.5			
Should avoid stress through day	Strong agree	92	46.0	2.40	80	M
	Agree	96	48.0			
	Disagree	12	6.0			
I should avoid drinking carbonated drinks	Strong agree	69	34.5	2.11	70.3	L
	Agree	84	42.0			
	Disagree	47	23.5			
I should take fruit or vegetable in my diet for maintaining my health	Strong agree	86	43.0	2.31	77	L
	Agree	90	45.0			
	Disagree	24	12.0			
I believe that heart disease is severe	Strong agree	62	31.0	2.08	69.3	L
	Agree	93	46.5			
	Disagree	45	22.5			
Total	Strong agree	1272	53	2.44	81.6	M
	Agree	930	38.75			
	Disagree	198	8.25			

(A.D.): Assessment Degree, (RS): Relative sufficiency with Scoring Scales: [(66.67 - 77.8) = Low level(L); (77.79 - 88.89) = Moderate level (M); (88.9 -100)] = high level (H).

Table 4 indicates that there is no significant association between students' knowledge score and the demographic characteristics (age, gender, academic year and marital status).

**Table 4:** Association between Students Knowledge and various factors (age, gender, academic year and marital status)

Factors	Value	df	Asymp. Sig. (2-sided)
Age	2.118a	3	.548
Gender	.526a	1	.468
Academic year	3.507a	3	.320
Marital status	.900a	1	.343

\*:  $P \leq 0.05$ ; \*\*:  $P \leq 0.01$ ,  $\chi^2$ , t-test

**Table 5:** Association between Students Attitudescore and various factors (age, gender, academic year and marital status)

Factors	Value	df	Asymp. Sig. (2-sided)
Age	7.814a	6	.252
Gender	.269a	2	.874
Academic year	7.921a	6	.244
Marital status	4.592a	2	.101

\*:  $P \leq 0.05$ ; \*\*:  $P \leq 0.01$ ,  $\chi^2$ , t-test

Table indicates that there is no significant association between Students Attitude score and the demographic characteristics (age, gender, academic year and marital status).

## DISCUSSION

Throughout the course of the data analysis of the current study, the findings indicated the majority of the study were female who accounted for (65.5%) of overall participants while male constituted (34.5%). Most of the study participants (35%) were age between 20 and 21 years. Study participant's distribution in equal forms on colleges were twenty-five percent for each college. (32.5%) of the students were from first class. Ninety three percent of the students were single and the remainder was married. Majority (89%) lived in urban areas while the rest (11%) lived in rural areas. These results are in accordance with the findings obtained from other study, who state that between the study sample, 53.6% were women and 46.4% were men. The plurality of the entrant (85%) was 18 to 23 years old, (7.7%) were 24 to 26 years old and the residual (7.3%) were (27) years old or older. The average age of the inhabitation was 21.77 (SD = 5.1), median age was 21 and rates was (18–57). About 60% of the population lived off campus while 40% lived on campus.<sup>9</sup> The findings of study is the same line with other researcher he reported that (100)

students college participants were analysed for this survey and of the sample, 66.9% were women (n = 85) and (33.1%) were men (n = 42). The mean age of participants was 20 years old (SD = 2.32), with a range of 18-38 years of age. All the students surveyed stated that they were undergraduates, with (33.9%) (n = 43) of the participants as college freshman. (37.8%) were sophomores (n = 48), 22.8% of participants were juniors (n = 29) and (5.5%) were seniors (n = 7).<sup>10</sup> Our findings are similar to study done by other researcher who reported that the average age of the respondents is 22.5±1.3 years old with the majority (99.4%), (158) of them were single. (22.6%) (36) and (77.4%) (123) were males and females, respectively.<sup>11</sup>

Discussion of the mean of score for the items students' knowledge concerning risk factors for cardiovascular diseases. Twenty-five questions to evaluate general knowledge of CVD. Only (46%) of the study sample answered correctly and (54%) responded incorrect "do not know". Knowledge questions were split to food pattern, epidemiological, medical and risk factors. Knowledge related to risk factors for CVD was answer correctly (Know) by (99%) majority of participation answer smoking main causes for CVS, most of them stated 56.5% alcohol main risk factors for CVS, most of them reported (73%) hypertension risk factors for CVD, (66.5%) answer hypercholesterolemia one of causes CVS and most of them told (57%) diabetes mellitus all of them answer these main risk factors for cardio vascular disease. The finding of the study agree with result obtained from other study who reported Respondents' knowledge regarding the CVD risk factors. The median score for knowledge about the nine CVD risk factors was (1.67) moderate knowledge The commonest risk factors identified by over four-fifths of respondents were smoking, obesity, unhealthy diet and physical inactivity.<sup>12</sup> Students' knowledge regarding risk factors for CVD. The most of the participants answered the danger factors questions items know like ambulation is type of exercise to be a preventive of CVD (57%), taken up fruits or vegetable is able to prevent from CVD (52%), avoid drinking alcohol reduced the risk of getting heart disease (68.5%), tobacco cessation prevent the risk of getting heart disease (51.5%) and body mass index of more than (30) is considered as obese (53.5). From all the risk factor questions, knowledge concerning physical inactivity (24%), stress (35.5%), CVD is the significant cause of inanimateness in world (40%), polyunsaturated fats are healthier for the heart than the saturated fats (25.5%), dietary fiber

lowers blood cholesterol (31%) and HDL refers to good cholesterol and LDL refers to bad cholesterol (18%) majority of participated of all item answer don't know. These findings are in good agreement with other studies done by other researchers who reported that the high percent of the population answered the hazard factors questions correctly like this trudging and horticulture lowers CVD risk (n = 453, 86.8%), taking red meat in excess CVD risk (n = 395), (75.7%), high blood glucose increases risk of CVD (n=383), (73.4%), and food rich fibers reduce the opportunity of developing CVD (n=317), (60.7%). From all the peril factor questions, knowledge about tobacco and stress were found to be low between the operatives (n = 228), (43.7%) and (n = 164), (31.4%). Fifty-five percent of the operatives answered the questions on dietary knowledge correctly. Questions such as knowledge about cholesterol content of vegetables (n = 357), (68.4%), dietary fiber's role in blood cholesterol (n = 320), (61.3%) and cholesterol in the yellow part of an egg (n = 309), (59.2%) showed higher correct responses.<sup>11-14</sup> Discussion of the mean of score for the item's students attitude concerning risk factors in cardiovascular diseases. Twelve questions exploring students attitude concerning of CVD. The item with the highest proportion of positive attitude was I should be doing exercise to maintain a healthy lifestyle (89.3%), I should maintain my weight according to my body mass index (BMI) (89.3), I should take less food for healthy lifestyle (98.3), Eating a healthy diet will decrease my chances of having CVD (81.3), exercising for 30 minutes most days is one of the best ways for me to prevent a heart diseases (82.3), Control on blood pressure decrease my chances of having a heart diseases (83.3%) , I should avoid eating fast food during travel and eating out with friends (81.3), should avoid stress through day (80). These results of study are good agreements with other studies done by other researchers whose reported shown positive attitude regarding the risk factors such as physically inactive (71.5%) was lower (over 88%), tobacco chewing/smoking (61.8%) was higher (over 55%), high fatty, oily/cholesterol diet (63.9%) was lower (over 91%) than that of the study conducted in University students.<sup>15-18</sup> Association between students' knowledge score and the demographic characteristics (age, gender, academic year and marital status. The association between sociodemographic and students' knowledge score was explored. There are no significant relationship between gender and students' knowledge (Chi-square = .526a), age (Chi-square = 2.118a) academic year (Chi-square = 3.507a) and marital status (Chi-square

= .900a). This result agrees with that of the other researchers who reported that in comparing the total knowledge scores, there is no significant difference between males and females (p = 0.837) or between the different years of study (p = 0.573).<sup>16,19</sup> The association between sociodemographic and students' attitudes Score was explored. There is no significant relationship between (age, gender, academic, marital status) and student's attitude scores. This finding disagree with results obtained from the study done by who reported there was no significant difference in comparing the total attitude scores between the different faculties (p = 0.211 respectively) or between the different years of study (p = 0.848 respectively) (20).

## CONCLUSIONS

This study demonstrates that, despite poor students knowledge regarding risk factors in cardiovascular diseases, overall students have positive attitude toward preventive measurement about risk factors of cardiovascular. We recommended health education programs about risk factors of cardiovascular diseases; seek to improve to understand the trouble of heart disease and work cooperatively to reduce them. Should be transmitted through the medium of radio and television, posters, pamphlets, social media like Facebook and Twitter to be beneficial to accessing to younger people.

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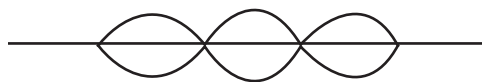
**Ethical approval:** Not required

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## Job Satisfaction in Nurses and its Correlation with Experience of Working in the COVID 19 Hospital

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### ABSTRACT

During the COVID-19 pandemic importance and role of nurses in health care team became pivotal. Worldwide nurse's played an important role and had taken active responsibility in caring patients during the COVID-19 pandemic. During that time they worked in a highly stressed environment with higher expectation.

This cross-sectional study was carried out to assess job satisfaction in nurses and its correlation with experience of working in the COVID-19 hospital. In this study total of 210 samples were selected by purposive sampling technique who met the inclusion criteria in a tertiary care hospital, Uttar Pradesh, India. Data collection were done with demographic profile tool, job satisfaction survey tool (standardized tool), and likert questionnaire to assess work experience. Reliability of the JSS was 0.91 and likert scale for work experience reliability was 0.89 calculated by internal consistency reliabilities i.e. coefficient alpha. Result showed negative correlation of work experience and job satisfaction of nurses while working in the COVID-19 hospital showed which indicated that amongst work experience and job satisfaction. This relationship may or may not be representing causation between job satisfaction and job experience. Many study supports that they have average job satisfaction while working during pandemic. This study recommends that it can be carried out in larger sample involving multi hospitals.

**Keywords:** COVID-19; Burnout; Lack of job satisfaction; Psychological experience.

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### INTRODUCTION

During pandemic importance of nurses in health care team became pivotal. Worldwide nurse's played an important role and had taken active responsibility in caring patients during the COVID-19 pandemic. Nurses were the front line professionals who took care of patients with COVID in the hospitals as well as in the community. Throughout pandemic nurses were key persons in health care team in caring and preventing COVID from further spread. During that time





they worked in highly stressed environment with higher expectation. Even though the World Health Organization announced COVID-19 as no longer a public health emergency, nurse's role remains vital in patient care.<sup>1</sup>

It has been observed worldwide that during pandemic there was scarcity of human resources and hospitals were flooded with patients. So, nurses had increased workload, due to which nurses were significantly exposed to physical and psychological distress. Hence due to increased workload and distressful situation nurses showed burnout symptoms and they had lack of job satisfaction, which affected patient care during pandemic.<sup>2</sup>

In various research studies it was found that working environment affected nurses' psychological and interpersonal wellbeing and even patient care. Nurses had job satisfaction in the working environment in positive or negative manner. But during pandemic in one way nurses shown keen interest in taking care of patients which gave them job satisfaction in positive manner while in another way they had lack of job satisfaction due to heavy workload and lack of resources. It has been highlighted that heavy workload, lack of peer support, organizational situation, lack of autonomy, and inadequate salary were the emerged factors that affected job satisfaction among nurses during pandemic.<sup>3,4</sup>

Therefore it was imperative that research to be undertaken to determine nurses' experience and their job satisfaction while working in the COVID hospital while taking care of COVID patients which was challenging in itself. Keeping this in view this study was conducted assess job satisfaction in nurses and its correlation with experience of working in the COVID-19 hospital.

## NEED OF THE STUDY

In the midst of the COVID-19 outbreak, nurses encountered distinct stressors encompassing both personal and professional aspects, which potentially affected their levels of job satisfaction. Nurses experiencing anxiety related to COVID-19 exhibited higher levels of work-related stress, greater inclination towards leaving their jobs and reported a marked increase in their burnout level. As fundamental healthcare professionals accountable for patient care, nurses grappled with unparalleled challenges during pandemic which included step increase in workload, scarcity of resources, vulnerability to infection, and emotional distress. The emotional toll from seeing increased

patient morbidity and mortality during the pandemic, and the limited psychological support provided by the organization, significantly affected nurses' emotional wellbeing and job satisfaction. Reduction in salaries and increased workload played a significant role as well, with adequate remuneration and acknowledgment acting as motivational factors.<sup>13</sup>

A cross-sectional study with 1760 HCWs was conducted during June 2023 using single-item burnout measure and the "Job Satisfaction Survey". Data revealed, 91.1% of nurses experienced high levels of burnout, while the respective percentage for the other HCWs was 79.9%. Nurses' satisfaction was lower than other HCWs. In particular, 61.0% of nurses experienced low levels of satisfaction, while the respective percentage for the other HCWs was 38.8%.<sup>14</sup>

According to an Indian study conducted in Maharashtra (2020) the prevalence of personal burnout from COVID-19 was 44.6% (903), work-related burn-out was only 26.9% (544), while greater than half of the respondents (1,069, 52.8%) had pandemic-related burnout. Younger respondents (21-30 years) had higher personal and work-related burnout. The prevalence of personal and work-related burnout was significantly ( $p < 0.01$ ) higher among females. The doctors were 1.64 times, and the support staff were 5 times more likely to experience pandemic-related burnout.<sup>15</sup>

By addressing the factors that influence job satisfaction, health care system can enhance nurse retention, improve patient care quality, and build a more resilient health care environment for future challenges. Therefore there was a need to conduct this study which would help in developing strategies to support this crucial workforce.

## OBJECTIVES

- To assess job satisfaction of nurses working in COVID-19 hospital
- To Assess experience of nurses working in COVID-19 hospital
- To correlate job satisfaction and work experience of nurses working in COVID-19 hospital.

## MATERIALS AND METHODS

This cross-sectional study was carried out to assess job satisfaction in nurses and its correlation with experience of working in the COVID-19

hospital. The study setting was a tertiary care hospital, Uttar Pradesh, India. A total of 210 samples were included in the study by purposive sampling technique who met the inclusion criteria. The inclusion criterion were nurses posted and worked in COVID-19 hospital since 2020, willing to participate in the study.

Instruments used for data collection were demographic profile, job satisfaction survey tool (standardized tool), and likert questionnaire to assess work experience. The Job Satisfaction Survey (JSS) scale consisted 36 items with nine facets; likert questionnaire to assess work experience had 4 dimensions with 24 items. Reliability of the JSS was 0.91 by internal consistency reliabilities (coefficient alpha) and for likert scale for work experience reliability was 0.89 by coefficient alpha.

Data collection began after obtaining approval from the Institutional Ethical Committee. Informed consents were taken from the participant before proceeding for the data collection.

## RESULTS

### Socio demographic characteristics of participants

Table 1 depicted that majority (77.1%) of participants were female and aged (54.3%) between 20-30 years. Most of the nurses were married (65.7%), had joint family (67.6%), studied GNM (92.4%) and majority (76.2%) of the nurses working during COVID-19 wards were on contractual job.

**Table 1:** Sociodemographic characteristics of participants

Variable	n (%)
<b>Age in years</b>	
20-30	114 (54.3)
31-40	80 (38.1)
41-50	11 (5.2)
51-60	5 (2.4)
<b>Gender</b>	
Male	48 (22.9)
Female	162 (77.1)
<b>Marital status</b>	
Married	138 (65.7)
Unmarried	71 (33.8)
Divorced	1 (0.5)
<b>Type of family</b>	
Nuclear	68 (32.4)
Joint	142 (67.6)

Table Cont...

### Professional Education

GNM	194 (92.4)
B.Sc. Nursing	15 (7.1)
M.Sc. Nursing	1 (.5)

### Status of Job

Permanent	50 (23.8)
Contractual	160 (76.2)

### Job Satisfaction of Nurses

Table 2 revealed that during pandemic majority of nurses were ambivalently satisfied (80%), (15%) were satisfied with their job while working in the COVID-19 hospital.

**Table 2:** Job satisfaction of Nurses

Job Satisfaction	n (%)
Dissatisfaction	10 (5)
Ambivalent	168 (80)
Satisfaction	32 (15)

### Work Experience of Nurses

According to table 3 the work experience of the participants, 33.8% nurses had average satisfaction, 22.4% were dissatisfied with their work while working in the COVID-19 hospital.

**Table 3:** Work experience of Nurses

Work Experience Score	n (%)
Satisfied	50 (23.8)
Average	71 (33.8)
Dissatisfied	47 (22.4)

### Correlation of work experience and job satisfaction of Nurses

Table 4 shows correlation of work experience and job satisfaction of nurses while working in the COVID-19 hospital showed negative correlation.

**Table 4:** Correlation of work experience and job satisfaction of Nurses

Variables	n	Mean	Standard deviation	Correlation (r)
Work Experience	210	77.25	8.34	-.027
Job Satisfaction		130.26	14.48	

## DISCUSSION

Researchers conducted this study with a view to the out finding correlation between job satisfaction and work experience of nurses working in COVID-19 hospital during pandemic. This study revealed that during pandemic majority of nurses

were ambivalently satisfied, and majority of nurses had average satisfaction with their work experience while working in the COVID-19 hospital during COVID-19 Pandemic.

In this study correlation of work experience and job satisfaction of nurses while working in the COVID-19 hospital showed negative correlation, which indicated that amongst work experience and job satisfaction, if one aspect increases while the other decreases, and vice-versa. This relationship may or may not be representing causation between job satisfaction and job experience.

Few researchers highlighted in their study that maximum participants in their study had medium level of job satisfaction whereas few had low level of job satisfaction. High level of job satisfaction among participants was low as compared to medium and low level of job satisfaction.<sup>5</sup> Researchers carried out a study in Israel found that nurses who worked with COVID positive patients had lower occupational satisfaction which was statistically significant in nature.<sup>6</sup> In another study it showed that one fourth of participants felt like quitting their job where they were working during pandemic and it also obviously found in the study that they had proportionately low job satisfaction.<sup>7</sup>

In current study the work experience of the participants, most of the nurses have average work experience satisfaction, which is related to a study which supported that maximum participants expressed that on first day of pandemic, the workload in the hospitals were over whelming. Many were not satisfied with the repeated change in hospital protocols for caring patients, protocols related to prevention of COVID spread and various treatment modalities.<sup>8</sup> A study reported that due to various experiences encountered by nurses during pandemic resulted in tumbling into chaos, diminished nursing care, and changes into pandemic ICU care.<sup>9</sup> In another study, few researchers reported that during pandemic, the nurses who were involved in triage in emergency department had fear of infection and transmission, demand of high work pressure, lack of team strength and the attitude of care of leaders.<sup>10</sup> Another study revealed that, the newly recruited male nurses showed negative emotions at the beginning of pandemic, due to sudden changes in working conditions, then, they gradually mastered in the working skills and trained themselves psychologically to cope up with the COVID-19 and developed a positive attitude toward life and shown a high sense of professional responsibility in patient care.<sup>11</sup> Another study reported that, during pandemic, job performance

among the health care workers had no significant correlation with psychological workload while working in the COVID ward.<sup>12</sup>

## CONCLUSION

This study highlighted that if work experience and job satisfaction among nurses were inversely correlated, if one tend to increase then, other one decreases or vice versa. This study recommends that it can be carried out in larger sample involving multi hospitals.

**Conflict of Interest:** No potential conflict of interest relevant to this article was reported.

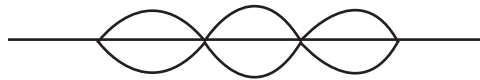
## Acknowledgment

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## Impact of Liver Cirrhosis upon Patient Physical and Social Communication at Baghdad Teaching Hospitals

Haider Mohammed Majeed<sup>1</sup>, Hussein Hadi Atiyah<sup>2</sup>

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### ABSTRACT

**Objectives:** To assess impact of liver cirrhosis up on adult patient's physical and social communication and to find out the relationship between sociodemographic characteristic with physical and social communication.

**Methodology:** A descriptive study is carried out throughout the present study to physical and social communication for patients with liver cirrhosis who attended the outpatient clinic department of Gastroenterology and Hepatology Teaching Hospital and Baghdad Teaching Hospitals in Baghdad. The study was carried out during the period extended from 28th October 2014 to 15<sup>th</sup> May, 2015. A purposive (non-probability) sample of (100) patients with liver cirrhosis. Questionnaire form was constructed for purpose of the study and it comprised of three parts. They include 1 demographic characteristics 2 clinical history for patient and family 3 assessment of physical and social communication. Content validity of the questionnaire was determine through a panel of (13) experts. Reliability and validity of questionnaire was determined through test re-test ( $r = 0.849^{**}$ ) of pilot study. Data was collected by the researcher who interviewed those patients and filled out the constructed questionnaire form. Data were analyzed by using descriptive statistical approach (frequency, percentage and mean of score) and inferential statistical approach (standard deviation and correlation coefficient).

**Results:** The findings of the paper revealed that (58%) of the study samples were males, and most of them were age group (48-57) years old, (83%) from the sample was married, high percentage of them were intermediate graduate (43%), most of them (33%) were Free job, majority of the study samples (60%) from urban residence, and (49%) were parley sufficient of monthly income classification, highest percentage (50%) had hepatitis B & hepatitis C as past medical history and (48%) of the study sample hadn't family history for any disease.

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**Conclusions:** Our data indicate that the physical and social communication of patients with liver cirrhosis is high decline in all domains of physical and social communication.

**Recommendations:** Further studies have to be carried out in order to assess patients' knowledge and attitude regarding physical and social communication.

**Keywords:** Physical and Social communication; Liver cirrhosis.



## INTRODUCTION

Many patients with chronic condition experience physical activity limitations or suffer symptoms through physical activities. This is concerning given the wealth of evidence demonstrating the importance of a physically active lifestyle in the prevention and management of many chronic diseases.<sup>1</sup> Cirrhosis is the final stage consequence of fibrosis of the hepatic parenchyma, resulting in nodule forming that may lead to changed hepatic function and blood flow. Both fibrosis and cirrhosis are the consequences of a sustained wound-healing response to a chronic liver injury from a range of causes, including viral, autoimmune, medication induced, metabolic and cholestatic diseases. The clinical manifestations of cirrhosis vary differently from without symptoms at all to liver failure, and are determined by both the severity and nature of the underlying liver disease as well as the extent of hepatic fibrosis. Up to (40%) of patients with cirrhosis are asymptomatic and may remain so for long periods, but progressive deterioration leading to death or liver transplantation is typical once complications (such as ascites, variceal hemorrhage or encephalopathy) develop. In such patients there is a (50%) five year mortality, with approximately (70%) of these deaths directly attributable to liver disease, in patients without symptoms cirrhosis can be first suggested during routine examination, although histological analysis may be required to establish the diagnosis.<sup>2</sup>

## OBJECTIVES OF THE STUDY

1. To assess of physical and social communication for patients with liver cirrhosis.
2. To find out the relationship between sociodemographic characteristic (age, gender, level of education and marital status) with physical and social communication.

## METHODOLOGY

A descriptive study is carried out throughout the present study to assess physical and social communication for patients with liver cirrhosis who attended the outpatient clinic department of Gastroenterology and Hepatology Teaching Hospital and Baghdad Teaching Hospitals in Baghdad. The study was carried out during the period extended from 28<sup>th</sup> October 2014 to 15<sup>th</sup> May, 2015. The sample consisted of (100) patients. A questionnaire interview format was designed and developed by the researcher for the purpose of the study; such development was employed through the available literature, clinical background and interview with patients who liver cirrhosis. All the items were measured on scale of (3) indicates that the needed to help as (never),<sup>1,2</sup> some time,<sup>3</sup> always. Rating scale was used to rate the frequency and extension of help needed.<sup>3</sup> The questionnaire consisted of<sup>3</sup> Part I: Demographic Information Sheet. Part II: Clinical history for patient and family. Part III: Physical and social communication. The content validity of the instrument was established through a panel of<sup>13</sup> experts. Test-Coefficients for (23) items of physical and social communication of liver cirrhosis were ( $r = 0.84^{**}$ ) for the total score of physical and social communication. The data were collected by using the questionnaire structured format through interview technique. Each patient was interviewed personally by the researcher. Throughout each interview explanation of the study was help up with patient in order to accept participation. Each interview took approximately from (15-30) minute and initiated at waiting room. Data were collected between 8.30 am to 1.30 pm. The determination was conducted during the period of February 3<sup>th</sup> 2015 to the April 5<sup>th</sup> 2015. The data were analysed through descriptive data analysis and inferential data analysis through the use of statistical package of social sciences (SPSS) version 16.0.

## RESULTS

**Table 1:** Distribution of the study samples by socio-demographic characteristics

Variables	Groups	F	%	Cumulative %
<i>Age Groups (Per years)</i>	18-27 years	18	18.0	18.0
	28-37 years	7	7.0	25.0
	38-47 years	8	8.0	33.0
	48-57 years	42	42.0	75.0
	58-67 years	25	25.0	100.0

*Table Cont...*



<b>Gender</b>	Male	58	58.0	58.0
	Female	42	42.0	100.0
<b>Marital status</b>	Single	16	16.0	16.0
	Married	83	83.0	83.0
	Divorced	1	1.0	1.0
<b>Level of Education</b>	Illiterate	15	15.0	15.0
	Read & write	15	15.0	30.0
	Primary graduate	4	4.0	34.0
	Intermediate graduate	43	43.0	77.0
	Secondary graduate	10	10.0	87.0
	Diploma graduate	8	8.0	95.0
	College graduate	4	4.0	99.0
	Master graduate	1	1.0	100.0
	Employee	21	21.0	21.0
	Free job	33	33.0	54.0
	Housewife	27	27.0	81.0
<b>Occupation</b>	Student	7	7.0	88.0
	Retired	12	12.0	100.0
	Total	100	100.0	
<b>Residence</b>	Urban	60	60.0	60.0
	Rural	40	40.0	100.0
<b>Type of house</b>	Property	54	54.0	54.0
	Leasehold	28	28.0	82.0
	Common	18	18.0	100.0
<b>Monthly income</b>	Sufficient	39	39.0	39.0
	Parley sufficient	49	49.0	88.0
	Insufficient	12	12.0	100.0

Table 1 revealed that (58%) of the study samples were males, and most of them were age group (48-57) years old, (83%) from the sample was married, in the high percentage of them were

intermediate graduate (43%), most of them (33%) were Free job, majority of the study samples (60%) from urban residence, and (49%) were insufficient monthly income classification.

**Table 2:** Distribution of patients and family according to liver cirrhosis related to clinical history

1 <sup>st</sup>	Clinical history for patient	F.	Percent	Cumulative %
1	Alcoholic liver disease	18	18.0	18.0
2	Non-alcoholic steatohepatitis	5	5.0	23.0
3	Primary biliary cirrhosis	5	5.0	28.0
4	Hepatitis B & hepatitis C	50	50.0	78.0
5	Cryptogenic	14	14.0	92.0
6	Wilson's disease	6	6.0	98.0
7	Budd-Chiari syndrome	2	2.0	100.0
2 <sup>nd</sup>	Clinical history for family			
1	Hepatitis B & hepatitis C	6	6.0	6.0
2	Wilson's disease	8	8.0	14.0
3	Heart disease	15	15.0	29.0
4	Diabetes mellitus	23	23.0	52.0
5	No have any disease	48	48.0	100.0

Table 2 shows that highest percentage (50%) had hepatitis B & hepatitis C as past medical history and (48%) of the study sample hadn't family history for any disease.

Table 4 indicated that there is significant between physical and social communication {marital status ( $r=.236^*$ ), at  $p < 0.01$  and there is significant between physical and social communication with

**Table 3:** Physical and social communication for patients with liver cirrhosis

Items	Always	Sometime	Never	M.S	Severity
<b>Physical and social communication</b>					
Walk independently	37	56	7	1.7	M
Exercise	0	4	96	2.96	H
Ascending and descending of stairs	1	52	47	2.46	H
Do prayer	2	58	40	2.38	M
Doing housework	0	47	53	2.53	H
Moving from the chair to the bed	59	36	5	1.46	L
Sitting in the chair and movement	58	40	2	1.44	L
Driving a car	0	46	54	2.54	H
Use of general transport	0	45	55	2.55	H
Travel	0	45	55	2.7	H
Use the phone	32	53	15	1.83	M
Use the laptop	5	50	45	2.4	H
Use internet to connect with others	1	36	63	2.62	H
Financial Management	17	47	36	2.19	M
Recognition	24	61	15	1.91	M
Watching TV and listening to radio	77	20	3	1.26	L
The use of electronic games of amusement	9	43	48	2.39	L
leisure activities e.g. Hunting	0	0	100	3	H
Participating in race running	0	0	100	3	H
Participate in races boxing	0	0	100	3	H
Play of football	0	7	93	2.93	H
Shopping	0	25	75	2.75	H
Visit relatives and friends	0	24	76	2.76	H

M.s = mean of score (1-1.69 = low, 1.7-2.39 = moderate, 2.4-3 = high)

Table 3 shows that the mean of score are high on items (2,3,4,8,9,10,12,13,18,19,20,21,22,23), moderate on items (1,4,11,14,15) and low on the remaining items.

**Table 4:** Correlation coefficient among (gender, age, level of education, marital status,) with physical and social communication

Correlations	Gender	Age	Education	Marital
Gender	1	.314**	-.163-	-.037-
Age	.314**	1	-.311**	-.052-
Level of education	-.163-	-.311**	1	.069
Marital status	-.037-	-.052-	.069	1
Physical & social	.120	-.105-	-.181-	.236*

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

level of education ( $r=-.181$ ) at  $p < 0.05$  and there is no relationship between physical and social communication with {gender ( $r=.103$ ), age ( $r=-.105$ ).

## DISCUSSION

Throughout the course of the data the of the present study, the findings show the most of the study samples are males (58%) while the remainder females, and the present study demonstrate that forty two percent of the study samples at age between (48-57) years old, majority of them are married, (49%) of them a insufficient monthly income classification. The findings agree with.<sup>4</sup> to assess Frequency of poor quality of life and predictors of health related quality of life in cirrhosis. Total of 273 participants were recruited in the study; among them 155 (57%) were males;

mean age of participants was 49 years (SD  $\pm$  11 years); among them majority of study participants *i.e.* 184 (67.5%) belonged to age group of 40–60 years.

This finding can be supported by another study. They present that of (31.3%) of sample in their study at 41–60 years old.<sup>5</sup>

Our findings about gender are similar to those reported that. 305 patients, 126 (41.3%) were females and 179 (58.7%) were males. The mean age of the patients was 40.67 ( $\pm$  14.39) (Mean  $\pm$  (Standard Deviation) (M  $\pm$  SD) years. The age range was between 18 and 71 years.<sup>6</sup>

This findings can be supported by another study who reported that study the findings of that around two thirds of the study subjects were males and their ages ranged between 40 to less than 60 years old with a mean age of 54.9  $\pm$  9.88.<sup>7</sup>

This findings were in good agreement with that obtained by other researcher who stated in their study about “CT esophagography: Non-invasive screening and grading of esophageal varies in cirrhosis” who found that three quarter of the subjects were male and their mean age was 56.84  $\pm$  7.52 years.<sup>8</sup>

Another study entitled “esophageal varices in patients with liver cirrhosis” reported that the male: female ratio was 1.9:1 with mean age 51.6 $\pm$ 10.2 and 55.4 $\pm$ 10.6.<sup>9</sup>

These result were similar to those result obtained by other researcher who stated that thirty three percent of the study samples are intermediate graduates as level of education.<sup>10</sup>

Thirty three percent of the study samples are free job and the majority of the study samples (60%) from urban residential areas.

The findings of the study sample shows that highest percentage (50%) had hepatitis B & hepatitis C in the past of medical history and (48%) of the study sample hadn't family history of any disease.

These findings were in good agreement with that obtained by other researcher who stated the most common etiologic factors for cirrhosis was hepatitis B & C.<sup>11</sup>

This result agrees with that of the other researcher who reported that most common causes of liver cirrhosis in united states is Hepatitis C (26%), Alcoholic liver disease (21%), Hepatitis C plus alcoholic liver disease (15%) and hepatitis B ,which maybe coincident with hepatitis (15%).<sup>12</sup>

The mean of the score of the Physical and social communication in table (3) for liver cirrhosis patient are high in item (Exercise), item (Ascending and descending of stairs), item (Doing housework), item (Driving car), item (Use of general transport), item (Use internet to connect with others), item (Use internet to connect with others), item (leisure activities), item (Participating in race running), item (Participate in races boxing), item (Play of football), item (Shopping), item (Visit relatives and friends), moderate and low in remaining items.

The finding of the study agree with who reported significant differences between PBC cases and controls with respect to participation in sports, physical exercises (Jogging or running  $p=0.03$ , Other exercises  $p=0.019$ ).<sup>13</sup>

This finding is in accordance with stated highest scores found on the categories of social activities, like alertness, emotional behaviour, movement, sleep/comfort, house management, and recreation and pastimes. These are all items that are expected to be affected in cognitive disorders.<sup>14</sup>

Another study which conforms to the finding of the present study who stated that Patients with liver cirrhosis also suffer from consequences, which will reduce their HRQOL, particularly on the physical domain area for their difficulty to maintain daily work and life.<sup>15</sup>

The finding of the study agree with who reported that these results demonstrated that as whole populations, people with the chronic liver disease are experiencing a greater functional difficulty in those areas of daily living represented by each PHAQ domain, than the comparator population activity domain ( $p<0.001$ ).<sup>16</sup>

The findings agree with who stated on the other hand, individuals who were deteriorate on neuropsychological tests that involve quickly processing information in an efficient and accurate manner reported a greater decline in IADLs (*e.g.*, managing finances, shopping).<sup>17</sup>

The findings of the study sample indicated that there no significant between physical and social communication with age.

It has been notices with changes in the cells, body tissues, and body organ system that tend to have an effect on body structure and function. Elderly people have chronic condition and associated function and cognitive limitations that require assistance with Activities of Daily Living (ADL) Today, more Assisted Living Facilities (ALF) are needed due to the number of healthier older people

is increasing and with improved health care.<sup>18</sup>

The findings of the study sample indicated that there is significant at level  $p < 0.01$  between physical and social communication with marital status, marital status may be considered partial effects on physical activities, especially female in home management, responsibilities toward family and husband to available all needed for them this increase over load on individual's through life. There is negative moderate relationship between activities of daily livings with level of education

This means whenever person increasing education level leading to decrease physical and social communication needed help and opposite low level of education increased need help with physical activities, education level play role in promote physical activities and social communication.

## CONCLUSIONS

Our data indicate that patients with liver cirrhosis experienced is high decline in all aspect of physical and social communication

## Recommendations

1. Further studies have to be carried out in order to assess patients' knowledge and attitude regarding personal care.
2. Replication of the study on a larger probability sample selected from different geographical areas in Iraq is recommended to obtain more generalizable data.
3. Regular follow up with specialized digestive clinics and increase their confidence in managing of hepatic cirrhosis.
4. Encourage patients to participate in group teaching stress management activities.

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# A Study to assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Prevention of Varicose Vein among Teachers in Selected School at Gorakhpur

Rohit Adarsh Samuel

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Rohit Adarsh Samuel. A Study to assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Prevention of Varicose Vein among Teachers in Selected School at Gorakhpur. J Surg. Nurs.2024;13(2):65-70.

## ABSTRACT

Varicose veins are enlarged, twisted veins commonly found in the legs due to high pressure from standing. They occur when vein valves fail to prevent blood from flowing backwards. This study aimed to evaluate a teaching program designed to improve teachers' knowledge on preventing varicose veins. Using a pre-experimental design, 40 teachers were selected through non-probability purposive sampling and assessed with a self-structured questionnaire before and after the program. Initial results showed a mean knowledge score of 9.1 (SD 3.65), which improved to 3.66 (SD 2.73) post-teaching. The t-value was 7.56, indicating significant improvement ( $p < 0.05$ ). Initially, 45% of teachers had inadequate knowledge, 52.5% had moderate knowledge, and 2.5% had adequate knowledge. Post-program, only 2.5% had inadequate knowledge, 7.5% had moderate knowledge, and 90% had adequate knowledge. The study concluded that the teaching program effectively enhanced teachers' knowledge on preventing varicose veins.

**Keywords:** Varicose veins; Teachers; Knowledge.

## INTRODUCTION

Health refers to the level of functional or metabolic efficiency of a living being and is closely related to lifestyle. Today, there is increasing emphasis on health promotion, wellness, and self-care. Millions of workers spend most of their working day standing for prolonged periods of

time and maintaining static positions. Standing position uses about 20% more energy than sitting position because human body is not designed for continuous standing at work. Prolonged standing, as seen in professions like nursing, teaching, traffic policing and retail sales, poses a risk factor for varicose veins. Studies indicate that women suffer from this condition four times more frequently than men.<sup>1</sup>

Varicose veins are veins that have become enlarged and tortuous. Typically, veins have leaflet valves to prevent blood from flowing backward. Leg muscles pump the veins to return blood to the heart, countering the effects of gravity. When these valves fail, blood can flow backward, causing the veins to enlarge even more.<sup>2</sup>

Millions of workers spend a majority of their working day on their feet and many hours in static positions, especially teachers. Varicose

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veins, which are twisted, enlarged veins near the surface of the skin, commonly develop in the legs and ankles. Prolonged sitting or standing can cause blood to pool in the leg veins, increasing pressure and leading to vein stretching. This stretching weakens the vein walls and damages the vein valves, resulting in varicose veins. In modern society, many professions involve long periods of standing or sitting with legs hanging down. Professions commonly affected by varicose veins include computer professionals, security guards, traffic police, salesmen working at counters in departmental stores, teachers, nurses, and paramedical workers in various hospital setups.<sup>3</sup>

Nowadays, diseases are becoming more common worldwide due to changing lifestyles. Creating awareness is essential for leading a successful and healthy life. Varicose veins are one of the major preventable conditions related to veins. They are serious and pose a threat to patients' lives if effective and efficient measures are not taken. Globally, the prevalence of varicose veins varies between 10% to 30% of the population. In the USA, the prevalence is approximately 4,500 per 100,000 people, affecting around 22 million women and 11 million men. Varicose veins are more common in western and industrialized countries compared to developing nations and are notably more prevalent in certain professions. For instance, they are ten times more common among nurses, police officers, and teachers. Promoting awareness about varicose veins and their prevention is crucial. This includes regular exercise, maintaining a healthy weight, avoiding prolonged standing or sitting, and wearing compression stockings if necessary. Early diagnosis and treatment can significantly reduce the risk of complications.<sup>4</sup>

The prevalence of varicose veins in India is notable, with 46.7% of females and 27.8% of males affected. Furthermore, 49.3% of females and 18.9% of males exhibit venous symptoms. In Tamil Nadu, the prevalence of varicose veins is significantly high among women, at 52%. Modern lifestyle changes and occupational patterns are contributing to a variety of health issues, including varicose veins.<sup>5</sup> Lower-limb varicose veins are particularly common and tend to have a higher prevalence among individuals in occupations that require prolonged standing, such as teaching. Varicose veins have become a serious health concern for millions of people worldwide and are often overlooked in India. There is an urgent need to spread awareness about varicose veins and their prevention in India.<sup>6</sup>

## NEED FOR THE STUDY

Worldwide, chronic venous disorders, including varicose veins, are significant causes of disease and disability. These disorders have substantial medical and economic consequences, imposing a tremendous societal cost. Despite the severity of the problem, little effort has been made to effectively prevent such disorders. Research articles on vascular diseases have shown that 15-20% of the Indian population suffers from varicose veins.<sup>7</sup>

Women, particularly teachers, suffer from this disease four times more often than men. Many occupations require prolonged standing or sitting, making individuals more prone to developing varicose veins. The high prevalence is partly due to a lack of knowledge about preventive practices. A study revealed that 22% of 40-year olds, 35% of 50-year olds, and 41% of 60-year olds in India are affected by varicose veins.<sup>8</sup>

According to research, 15-20% of the population in India suffers from varicose vein. In our country, people are often unaware of this condition, leading to its increased severity. Health education is one of the key strategies in preventing varicose veins.<sup>9</sup> Considering that health education significantly affects the knowledge of traffic police, nurses, and teachers, it can play a crucial role in the prevention of varicose veins among these groups.<sup>10</sup>

The investigator observed that many teachers suffer from varicose veins and lack sufficient knowledge about the condition. This observation motivated the assessment of the effectiveness of a planned teaching program on the prevention of varicose veins among teachers. The aim is also to raise awareness, which will serve as a basis for further studies.

## STATEMENT

A study to assess the effectiveness of planned teaching program on knowledge regarding prevention of varicose vein among teachers in a selected school at Gorakhpur.

## OBJECTIVES

1. To assess the pre-test and post-test level of knowledge on prevention of varicose vein among teachers.
2. To evaluate the effectiveness of planned teaching program on prevention of varicose vein among teachers.

3. To associate the post-test level of knowledge scores with their selected demographic variables.

### NULL HYPOTHESES

**NH<sub>1</sub>:** There is no significant difference between the pre-test and post-test level of knowledge scores of teachers regarding prevention of varicose vein.

**NH<sub>2</sub>:** There is no significant association between the post-test level of knowledge scores of teachers with their selected demographic variables.

### ASSUMPTIONS

- The teachers may have high risk of developing varicose vein due to long hours of standing during working hours.
- The planned teaching program may enhance their knowledge regarding prevention of varicose vein.

### Delimitations

- The study was delimited to a period of one week.
- This study includes only teachers as profession.
- This study was delimited to selected setting of data collection.

### Sample selection criteria

#### Inclusion criteria

1. Teachers working in selected school at Gorakhpur.
2. Teachers who are willing to participate in this study.
3. Teachers who can speak and write Hindi or English

#### Exclusion Criteria

1. Teachers are on leave or not available during data collection.
2. Teachers who have already attended any educational program regarding varicose vein.

## METHODOLOGY

The research approach used in the study was quantitative approach. The investigator adopted a nonexperimental descriptive design. The study was conducted among teachers at Saint Andrews Inter College, Gorakhpur. Ethical aspects such as oral consent obtained from the teachers and the

confidentiality of the identity and response were considered throughout the study. The forty samples were selected by using non-probability convenient sampling technique in accordance with the sample selection criteria. Brief introduction about self and purpose of the study was given. Good interpersonal relationships were established among the teachers. Pre-test was conducted using self-structured questionnaire on Demographic variables, knowledge on prevention of varicose vein it took around 10 to 15 minutes to complete the questionnaire, after that a planned teaching programmed was given by using PPT about prevention of varicose vein on the same day on 7<sup>th</sup> day post test was conducted by using same self-structured questionnaire.

## RESULTS

### Section A: Description of the Demographic Variables of the Samples Teachers

**Table 1:** Frequency and percentage distribution of demographic variables among teachers

N= 40		
Demographic Variables	Frequency (n)	Percentage %
<b>Age in year</b>		
20 – 30 years	16	40%
31 – 40 years	2	5%
41 – 50 years	11	27.5%
Above 50 years	11	27.5%
<b>Gender</b>		
Male	16	40%
Female	24	60%
<b>Marital status</b>		
Married	28	70%
Unmarried	12	30%
<b>Education qualification</b>		
Graduate	13	32.5%
Post graduate	27	67.5%
<b>Family history of varicose vein</b>		
Yes	4	10%
No	36	90%
<b>Duration of working hours per day</b>		
6 hours	11	27.5%
8 hours	27	67.5%
12 hours	2	5%
<b>Years of experience in teaching</b>		
1-5 years	23	57.5%
6-10 years	8	20%
11-15 years	2	5%

Table Cont...

More than 12 years	7	17.5%
<b>Source of information</b>		
Family /Friends /Relatives	11	27.5%
Mass media	10	25%
Health professional	12	30%
No information	7	17.5%

The table above shows that the description of the demographic variables of the teachers, The results indicated that with regard to age majority, 16 (40%) were in the age group of 20 to 30 years, 11 (27.5%) were in age the group of 41 to 50 years, 11 (27.5%) were in age the group of above 50 years, 2 (5%) were in age the group of 31 to 40 years. With regard to gender, 24 (60%) were female, 16 (40%) were male. With regard to marital status, 28 (70%) were married, 12 (30%) were unmarried. With regard to education qualification 13 (32.5%) were graduates, 27 (67.5%) were post graduates. Regarding family history of varicose vein 4 (10%) had no family history of varicose vein 36 (90%).

**Table 2:** Frequency and percentage distribution of pre-test and post-test level of knowledge regarding prevention of varicose vein among teachers

Level of Knowledge	N= 40			
	Pre-test		Post-test	
	Freq. (n)	%	Freq. (n)	%
Inadequate (4% – 32%)	18	45	1	2.5
Moderately Adequate (36%–64%)	21	52.5	3	7.5
Adequate (68% – 100%)	1	2.5	36	90

**Table 4:** Association of post-test level of knowledge with their selected demographic variables

							N=40
Demographic Variables	Inadequate		Moderate		Adequate		Chi-Square Test
	(n)	%	(n)	%	(n)	%	
<b>Age</b>							
20 – 30 years	1	2.5%	0	0%	15	37.5%	X <sup>2</sup> =10.59, d.f=6 P=12.59, N S
31 – 40 years	0	0%	1	2.5%	1	2.5%	
41 – 50 years	0	0%	0	0%	11	27.5%	
Above 50 years	0	0%	2	5%	9	22.5%	
<b>Gender</b>							
Male	0	0%	2	5%	14	35%	X <sup>2</sup> =1.5725, d.f=2, P= 5.99, NS
Female	1	2.5%	1	2.5%	22	55%	
<b>Marital status</b>							
Married	0	0%	1	2.5%	27	67.5%	X <sup>2</sup> =4.6745, d.f=2 P=5.99, NS
Unmarried	1	2.5%	2	5%	9	22.5%	
<b>Education qualification</b>							
Graduate	1	2.5%	3	7.5%	9	22.5%	X <sup>2</sup> =7.2306, d.f=2 P=5.99, S
Post graduate	0	0%	0	0%	27	67.5%	

Table Cont...

The table 2 shows that the Frequency and percentage distribution of pre-test and post-test level of knowledge regarding prevention of varicose vein among teachers. In pre-test 45% teachers had inadequate level of knowledge, 52.5% had moderately adequate level of knowledge and 2.5% had adequate level of knowledge whereas in post-test, 2.5% of teachers had inadequate level of knowledge, 7.5% had moderately adequate level of knowledge and 90% had adequate level of knowledge.

**Table 3:** Comparison of pre-test and post-test level of knowledge on prevention of varicose vein among teachers

Test	Mean	S. D	Mean Difference	Paired 't' test Value
Pre – test	9.1	3.65	5.44 (13.6%)	t=7.56 P=0.002 S***
Post - test	3.66	2.73		

\*\*\*p<0.002 S –Significant, N.S-Non significant

The table above shows that the pre-test mean score of knowledge was 9.1 with the SD of 3.65 and the post-test mean score was 3.66 with the SD of 2.73. The mean difference score of knowledge was 5.44. The mean improvement percentage was 13.6%. The calculated paired 't' test value of t=7.56 was found to be statistically significant at p<0.002 level.

This clearly stated that there was a significant improvement in the post test level of knowledge after the administration of planned teaching programme regarding prevention of varicose vein among teachers.

#### Family history of varicose vein

Yes	0	0%	1	2.5%	3	7.5%	$X^2=2.136$ , d.f=2
No	1	2.5%	2	5%	33	82.5%	P=5.99, NS

#### Duration of working hours per day

6 hours	0	0%	1	2.5%	10	25%	$X^2=0.6449$ , d.f=6
8 hours	1	2.5%	2	5%	24	60%	P=12.59, N.S
12 hours	0	0%	0	0%	2	5%	

#### Years of experience in teaching

1-5 years	1	2.5%	2	5%	20	50%	$X^2=7.269$ , d.f=6
6-10 years	0	0%	0	0%	8	20%	P=12.59, NS

#### Sources of information

Family/Friends/Relatives	1	2.5%	0	0%	10	25%	
Mass media	0	0%	2	5%	8	20%	$X^2=11.572$ , d.f=6
Health professional	0	0%	0	0%	12	30%	P=12.59, S
No information	0	0%	1	2.5%	6	15%	

\*p<0.05, S – Significant, N.S – Not Significant

The table above shows that the demographic variable of educational qualification ( $X^2=7.2306$ ,  $P=5.99$ ) had shown statistically significant association with level of knowledge on prevention of varicose vein among teachers at  $p<0.05$  and the other demographic variables had not shown statistically significant association with the level of knowledge on prevention of varicose vein among teachers.

## DISCUSSION

Finding of the study is discussed based on these objectives

The first objective of the study was to assess the pre-test and post-test level of knowledge regarding prevention of varicose among teachers. The level of knowledge of prevention of varicose vein assessed among the 40 teachers who participated in the study in the Pre-test, 18(45%) had inadequate knowledge 21(52.5%) had moderately adequate knowledge, 1(2.5%) had adequate knowledge whereas in the post test after the planned teaching programme, 36(90%) had adequate knowledge, 3(7.5%) had moderately adequate knowledge, 1(2.5%) had inadequate knowledge.

The second objective of the study was to evaluate the effectiveness of planned teaching programme on prevention of varicose vein among teachers. The pre-test mean score of knowledge was 9.1 with the SD of 3.65 and the post-test mean score was 3.66 with the SD of 2.73. The mean difference score of knowledge was 5.44. The calculated paired

't' test value of  $t=7.56$  was found to be statistically significant at  $p<0.02$  level. This clearly infers that there was significant improvement in the post test level of knowledge after the administration of planned teaching programmed among teachers. In pre-test 45% teachers had inadequate level of knowledge, 52.5% had moderately adequate level of knowledge and 2.5% had adequate level of knowledge whereas in post-test, 2.5% of teacher's had in adequate level of knowledge, 7.5% had moderately adequate level of knowledge and 90% had adequate level of knowledge.

The present study was supported with a study done by Raj Rani, 2021 conducted a study to evaluate the knowledge on effectiveness of Structured Teaching Program on prevention of varicose vein among teachers, the data presented that the mean post-test knowledge score ( $19.14\pm2.00$ ) was higher than the mean Pre-test knowledge score ( $09.11\pm1.60$ ). The calculated 't' value (28.84) was greater than the table value ( $t = 3.5$ ) at 0.001 level of significance. Hypothesis  $H_1$  was rejected. Hence it can be inferred that the structured teaching programme was effective in increasing the knowledge of school teachers regarding prevention and management of varicose vein.

The third objective of the study was to associate the post-test level of knowledge scores with their selected demographic variable. Association of post-test level of knowledge on varicose veins among teachers with their selected demographic variables was done using chi square test, It was found that there is no significant association found



between the post-test level of knowledge with their selected demographic variables such age, years of experience in teaching, educational qualification, sources of information.

The first null hypothesis stated was "There is no significant difference between the pre-test & post-test knowledge score of teachers regarding prevention of varicose vein" and the formulated null hypothesis was rejected because the significant difference was found in the pre-test and post-test knowledge score of teachers regarding prevention of varicose vein.

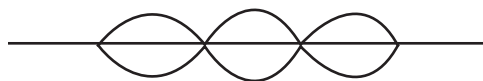
The second null hypothesis stated was "There is no significant association between post-test knowledge scores of teachers with their selected demographic variables. It was done using chi square test, It was found that there is no significant association between the post-test level of knowledge and demographic variables such age, gender, marital status, years of experience in teaching, family history of varicose vein, duration of working hours per day Sources of information, Hence the null hypothesis H2 states that there is no significant association of post-test knowledge scores of teachers with their selected demographic variables, it is rejected.

## SUMMARY AND CONCLUSION

The study concluded that after the post-test, 36(90%) had adequate knowledge, 3(7.5%) had moderately adequate knowledge and 1(2.5%) had inadequate knowledge; it is evident that the teachers learnt better and showed improvement in knowledge on prevention of varicose vein. There is a significant difference in the pre & post-test knowledge score on prevention of varicose vein among teachers. The calculated paired 't' test value of  $t=7.56$  was found to be statistically significant at  $p<0.02$  level.

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# Significance of Mental Health and Wellness

K. Kalpana

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## ABSTRACT

Mental health determines think, feel and act. Good mental health is when feel and act. Globally, the majority of those who need mental health care worldwide lack access to high-quality mental health services. Stigma, human resource shortages, fragmented service delivery models and lack of research capacity for implementation and policy change contribute to the current mental health treatment gap. Common mental disorders are responsible for the largest proportion of the global burden of disease.

**Keywords:** Mental Health; Stigma; Treatment; Mental disorders; and lack of research; Emotional; Psychological socio; well being.

## INTRODUCTION

Mental health determines think, feel and act. Good mental health is when feel and act.

Globally, the majority of those who need mental health care worldwide lack access to high-quality mental health services. Stigma, human resource shortages, fragmented service delivery models and lack of research capacity for implementation and policy change contribute to the current mental health treatment gap.

Common mental disorders are responsible for the largest proportion of the global burden of disease.

One in five people in Northern Ireland will

experience potential mental health problems. Anyone can suffer from mental health problems. While certain individuals or groups are more vulnerable, no one is immune to poor mental health.

Mental health includes our emotional, psychological socio wellbeing.

Mental health is a state of mental well being that enables people to cope with the stresses of life, realize their abilities, learn well and work well and contribute to their community.

Father of mental health is "PHILLIPPE PINEL"

There are many different conditions that are recognized as mental illnesses. The more common types include:

### Anxiety disorders

People with anxiety disorders respond to certain objects or situations with fear and dread, as well as with physical signs of anxiety or panic, such as a rapid heartbeat and sweating. An anxiety disorder is diagnosed if the person's response is not appropriate for the situation, if the person cannot

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control the response, or if the anxiety interferes with normal functioning.

### **Mood disorders**

These disorders, also called affective disorders, involve persistent feelings of sadness or periods of feeling overly happy, or fluctuations from extreme happiness to extreme sadness. The most common mood disorders are depression, bipolar disorder and cyclothymic disorder.

### **Psychotic disorders**

Psychotic disorders involve distorted awareness and thinking. Two of the most common symptoms of psychotic disorders hallucinations the experience of images or sounds that are not real, such as hearing voices and delusions, which are false fixed beliefs that the ill person accepts as true, despite evidence to the contrary.

### **Eating disorders**

Eating disorders involve extreme emotions, attitudes and behaviors involving weight and food.

### **Impulse control and addiction disorders**

People with impulse control disorders are unable to resist urges, or impulses, to perform acts that could be harmful to themselves or others.

### **Personality disorders**

People with personality disorders have extreme and inflexible personality traits that are distressing to the person and/or cause problems in work, school, or social relationships. In addition, the person's patterns of thinking and behavior significantly differ from the expectation

**Obsessive-compulsive disorder (OCD):** People with OCD are plagued by constant thoughts or fears that cause them to perform certain rituals or routines. The disturbing thoughts are called obsessions and the rituals are called compulsions.

**Post-traumatic stress disorder (PTSD):** is a condition that can develop following a traumatic and/or terrifying event, such as a sexual or physical assault. Extraordinary advances have been made in the treatment of mental illness. As a result, many mental health disorders can now be treated nearly as successfully as physical disorders.

**Most treatment methods for mental health disorders can be categorized**

1. Somatic and 2. Psychotherapeutic

Somatic treatments include drugs,

electroconvulsive therapy and other therapies that stimulate the brain (such as transcranial magnetic stimulation and vagus nerve stimulation).

Psychotherapeutic treatments include psychotherapy (individual, group, or family and marital), behavior therapy techniques (such as relaxation training or exposure therapy) and hypnotherapy.

### **Psychotherapy**

In recent years, significant advances have been made in the field of psychotherapy, which is sometimes referred to as talk therapy. By creating an empathetic and accepting atmosphere, the therapist often is able to help the person identify the source of the problems and consider alternatives for dealing with them.

Psychotherapy is appropriate and effective in a wide range of conditions. Even people who do not have a mental health disorder may find psychotherapy helpful in coping with such problems as employment difficulties, bereavement, or chronic illness in the family. Group psychotherapy, couples therapy and family therapy are also widely used.



### **Types of psychotherapy**

- Behavioral therapy
- Cognitive therapy
- Interpersonal therapy
- Psychoanalysis
- Psychodynamic psychotherapy
- Supportive psychotherapy

Psychiatric nurses care for individuals, groups, families and communities impacted by mental health conditions.

A psychiatric mental health nurse (PMHN) is a with specialized training that equips them with the expertise required to care for and support individuals suffering from mental health problems.

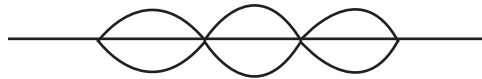
To diminish the mental health treatment gap and to improve access to high-quality mental health services globally: diminishing pervasive stigma, building mental health system treatment and research capacity, implementing prevention programs to decrease the incidence of mental disorders and establishing sustainable scale up of public health systems to improve access to mental health treatment using evidence-based intervention.

## CONCLUSION

Mental health can be challenging to deal with. However, it is not impossible to overcome. Nurses are in a key position to provide interventions to address mental health and academic achievement.

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The second page should carry the full title of the manuscript and an abstract (of no more than 150 words for case reports, brief reports and 250 words for original articles). The abstract should be structured and state the Context (Background), Aims, Settings and Design, Methods and Materials, Statistical analysis used, Results and Conclusions. Below the abstract should provide 3 to 10 keywords.



## Introduction

State the background of the study and purpose of the study and summarize the rationale for the study or observation.

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The methods section should include only information that was available at the time the plan or protocol for the study was written such as study approach, design, type of sample, sample size, sampling technique, setting of the study, description of data collection tools and methods; all information obtained during the conduct of the study belongs in the Results section.

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Present your results in logical sequence in the text, tables and illustrations, giving the main or most important findings first. Do not repeat in the text all the data in the tables or illustrations; emphasize or summarize only important observations. Extra or supplementary materials and technical details can be placed in an appendix where it will be accessible but will not interrupt the flow of the text; alternatively, it can be published only in the electronic version of the journal.

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Include summary of key findings (primary outcome measures, secondary outcome measures, results as they relate to a prior hypothesis); Strengths and limitations of the study (study question, study design, data collection, analysis and interpretation); Interpretation and implications in the context of the totality of evidence (is there a systematic review to refer to, if not, could one be reasonably done here and now?, What this study adds to the available evidence, effects on patient care and health policy, possible mechanisms)? Controversies raised by this study; and Future research directions (for this particular research collaboration, underlying mechanisms, clinical

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## References

List references in alphabetical order. Each listed reference should be cited in text (not in alphabetic order) and each text citation should be listed in the References section. Identify references in text, tables and legends by Arabic numerals in square bracket (e.g. [10]). Please refer to ICMJE Guidelines ([http://www.nlm.nih.gov/bsd/uniform\\_requirements.html](http://www.nlm.nih.gov/bsd/uniform_requirements.html)) for more examples.

### Standard journal article

[1] Flink H, Tegelberg Å, Thörn M, Lagerlöf F. Effect of oral iron supplementation on unstimulated salivary flow rate: A randomized, double-blind, placebo-controlled trial. *J Oral Pathol Med* 2006; 35: 540–7.

[2] Twetman S, Axelsson S, Dahlgren H, Holm AK, Källestål C, Lagerlöf F, *et al.* Caries-preventive effect of fluoride toothpaste: A systematic review. *Acta Odontol Scand* 2003; 61: 347–55.

### Article in supplement or special issue

[3] Fleischer W, Reimer K. Povidone-iodine antiseptics. State of the art. *Dermatology* 1997; 195 Suppl 2: 3–9.

### Corporate (collective) author

[4] American Academy of Periodontology. Sonic and ultrasonic scalers in periodontics. *J Periodontol* 2000; 71: 1792–801.

### Unpublished article

[5] Garoushi S, Lassila LV, Tezvergil A, Vallittu PK. Static and fatigue compression test for particulate filler composite resin with fiber-reinforced composite substructure. *Dent Mater* 2006.

### Personal author(s)

[6] Hosmer D, Lemeshow S. Applied logistic regression, 2nd edn. New York: Wiley-Interscience; 2000.

### Chapter in book

[7] Nauntofte B, Tenovou J, Lagerlöf F. Secretion and composition of saliva. In: Fejerskov O,

Kidd EAM, editors. Dental caries: The disease and its clinical management. Oxford: Blackwell Munksgaard; 2003. pp 7-27.

### No author given

[8] World Health Organization. Oral health surveys - basic methods, 4<sup>th</sup> edn. Geneva: World Health Organization; 1997.

### Reference from electronic media

[9] National Statistics Online – Trends in suicide by method in England and Wales, 1979–2001. [www.statistics.gov.uk/downloads/theme\\_health/HSQ20.pdf](http://www.statistics.gov.uk/downloads/theme_health/HSQ20.pdf) (accessed Jan 24, 2005): 7–18. Only verified references against the original documents should be cited. Authors are responsible for the accuracy and completeness of their references and for correct text citation. The number of reference should be kept limited to 20 in case of major communications and 10 for short communications.

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