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Original Research Article

Association of Stress and Infection Control Protocol; A Cross-Sectional Study among Dental Students

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Introduction: Occupational stress has been a hot topic among dental professionals worldwide and it has impacted their clinical performance as well. Maintenance of infection control protocol is an important component of dental business, which enhances its significance in multiple folds. Materials and methods: Target population included dental students from different levels including under and post graduate from Riyadh city. A total number of 500 students were questioned by questionnaire being distributed through social media including Facebook and Whatsapp. Results: 66% of them are females and 34% males. According to the distribution of participants on the basis of their academic years, this shows that 35% students belong to 4th year, 21% to 5th year, 9% to 6th year and 12% from postgraduate courses. Conclusions: There is a positive correlation between high stress and low level of infection control knowledge and attitude.

Keywords: Stress, Infection control, Dental students.

INTRODUCTION

A person's behavior is influenced by his/her mental state. Stress is one of the most common psychological disturbances that affect the quality of one's life. Stress is associated with disturbed neuroendocrine mechanisms, which may result from external stimuli affecting the person. These could be related to family problems, relationship issues, academic or professional failures and post traumatic stress disorder (Fink, 2016).

This study is about stress among dental professionals, who may undergo stressful situations during their daily routine. These may be associated with fearful patients or professional frictions. Work load that is unbearable or challenging to manage is also one of the common reasons behind stress among dentists. Lack of dental skills or qualification may also contribute towards the stressful situation for a dentist (Fabian et al, 2016; Dehnad et al, 2016).

Infection control is the most important step in making the business of dentistry successful in the long run. A dental practice is known for its cleanliness and maintenance of proper infection control protocol. A dentist is the one who is responsible to do the above-mentioned tasks, which adds to the already busy and stressful routine. However, being occupied does not reduce the importance of infection control protocol (Sebastiani, Dym & Kirpalani, 2016).

Occupational stress has been a hot topic among dental professionals worldwide and it has impacted their clinical performance as well. Maintenance of infection control protocol is an important component of dental business, which enhances its significance in multiple folds. Stress and anxiety among dental professionals have contributed in ignoring and lacking crucial aspects in dental practice including infection control (Johns & Jepsen, 2015). Dental professionals should keep themselves updated about the infection control protocols in order to keep the staff and patients safe from any occupational hazards. It has been observed among dentists of India that increased workload affects their professionalism and ability to maintain infection control protocol (Reddy et al, 2015).

Several components of infection control are of huge importance when working in a clinical environment. Vaccinations against infectious diseases, regular hand washing and knowledge of donning and removing of personal protective equipment are few of them. Dental professionals should be aware of these components in order to provide the patients with the safest possible dental treatment (Mohiuddin & Dawani, 2015). Failure of or ignoring infection control protocol may lead to accidents including sharps injuries, which are the most common source of infection spread among dentists (Ferreira et al, 2012).

AIMS AND OBJECTIVES

To evaluate the knowledge, attitudes, and practices regarding infection control during stressed situations among dental practitioners in Riyadh city. This study will serve as a needs

assessment for the development of interventions to improve infection control practices during stress

MATERIALS AND METHODS

This is a cross sectional study, which utilized a closed ended questionnaire. Questionnaire was constructed online using Google forms. Questions included points related to demographics, educational level, and knowledge about infection control and stress levels.

The target population included dental students from different levels including under and postgraduate from Riyadh city. A total number of 500 students were questioned by questionnaire being distributed through social media including Facebook and Whatsapp.

Statistical analysis was done using SPSS version 19 in order to achieve descriptive as well as inferential results. Comparisons between groups were conducted using Chisquare test with the value of significance kept under 0.05.

RESULTS

Figure 1 shows the gender ratio of study participants, which reveals that 66% of them are females and 34% males. Figure 2 describes the distribution of participants on the basis of their academic years, which shows that 35% students belong to 4th year, 21% to 5th year, 9% to 6th year and 12% from postgraduate courses. As far as age groups are concerned, 19% were 18-20 years, 34% were 21-23 years, 26% were 24-26 years, 12% were 27-29 years and 8% were 30+ years.

Tables below show the comparison of the survey responses on the basis of gender, dentistry level and age groups achieved by Chi-square test. Furthermore, correlation of stress and infection control protocol was also tabulated after analyzing the data using Pearson's Correlation.

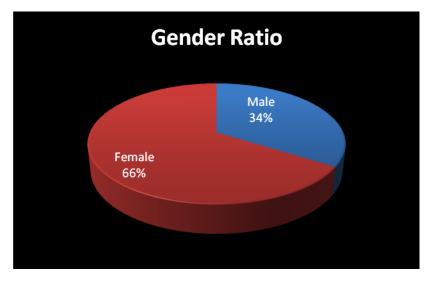


Figure 1: Gender ratio of study participants

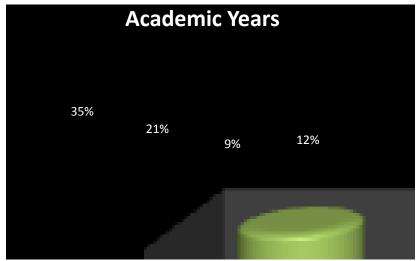


Figure 2: Distribution of students on the basis of academic years

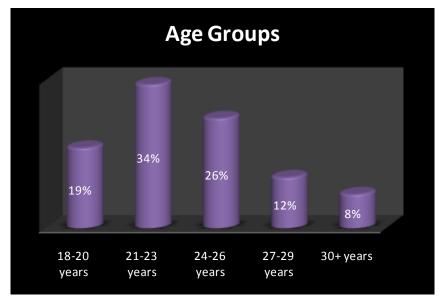


Figure 3: Distribution of study participants on the basis of age groups

Table 1: Comparison of survey responses on the basis of gender

Questions	Males	Females	p-value
Do you believe that you have	Yes: 31%	Yes: 25%	
enough knowledge concerning	No: 27%	No: 28%	0.053
infection prevention?	I don't know: 14%	I don't know: 24%	
	Yes, sometimes: 28%	Yes, sometimes: 24%	
Can infectious diseases be	Yes: 58%	Yes: 50%	0.000
transmitted during dental procedure?	No: 14% I don't know: 16%	No: 4% I don't know: 36%	0.000
procedure?	Yes, sometimes: 12%	Yes, sometimes: 9%	
Is it mandatory to use personal	Yes: 49%	Yes: 47%	
protection tools during every	No: 17%	No: 8%	0.006
dental procedure?	I don't know: 14%	I don't know: 20%	0.000
aomai proceda.o.	Yes, sometimes: 20%	Yes, sometimes: 26%	
Do you think dentists can reject	Yes: 28%	Yes: 17%	
treating a patient with a known	No: 31%	No: 20%	0.000
infectious disease (Hepatitis,	I don't know: 16%	I don't know: 19%	
HIV, etc)?	Yes, sometimes: 25%	Yes, sometimes: 44%	
Do you think that dentists	Yes: 36%	Yes: 35%	
should always wear goggles	No: 20%	No: 7%	0.000
during dental procedures?	I don't know: 14%	I don't know: 14%	
	Yes, sometimes: 30%	Yes, sometimes: 44%	
Is it mandatory for a patient to	Yes: 35% No: 14%	Yes: 25% No: 10%	0.000
wear goggles?	I don't know: 20%	I don't know: 11%	0.000
	Yes, sometimes: 31%	Yes, sometimes: 54%	
Do you believe that hands need	Yes: 53%	Yes: 40%	
to be washed after glove	No: 15%	No: 21%	0.000
removal?	I don't know: 14%	I don't know: 8%	0.000
16.116.16.1	Yes, sometimes: 18%	Yes, sometimes: 31%	
Is it wise to walk beyond the	Yes: 26%	Yes: 16%	
perimeter of your dental clinic	No: 42%	No: 38%	0.000
wearing your procedure gown?	I don't know: 16%	I don't know: 10%	
	Yes, sometimes: 15%	Yes, sometimes: 36%	
After logging in a note on the	Yes: 51%	Yes: 57%	
screen, do you think you must	No: 18%	No: 6%	0.000
change your gloves?	I don't know: 15%	I don't know: 9%	
D	Yes, sometimes: 17%	Yes, sometimes: 29%	
Do you change your gloves	Yes: 55% No: 14%	Yes: 58% No: 7%	0.001
after receiving a phone call?	I don't know: 14%	No: 7% I don't know: 7%	0.001
	Yes, sometimes: 17%	Yes, sometimes: 28%	
Is it mandatory to clean and	Yes: 59%	Yes: 52%	
10 it mandatory to olean and	1 00. 00 /0	100.0270	

disinfect the impression before	No: 19%	No: 6%	0.000
sending it to the laboratory?	I don't know: 14%	I don't know: 31%	
	Yes, sometimes: 8%	Yes, sometimes: 11%	
Can we leave extracted teeth,	Yes: 33%	Yes: 34%	
on the instrument tray?	No: 29%	No: 28%	0.023
	I don't know: 21%	I don't know: 29%	
	Yes, sometimes: 17%	Yes, sometimes: 9%	
Do we need to change the	Yes: 63%	Yes: 81%	
suction tip when it comes in	No: 18%	No: 7%	0.000
contact with a contaminated	I don't know: 11%	I don't know: 6%	
surface?	Yes, sometimes: 8%	Yes, sometimes: 6%	
Is there a difference between	Yes: 48%	Yes: 40%	
cold (spray) and heat	No: 16%	No: 5%	0.000
(autoclave) sterilization of the	I don't know: 29%	I don't know: 52%	
air/ water syringe?	Yes, sometimes: 6%	Yes, sometimes: 3%	
Do you believe you can skip the	Yes: 22%	Yes: 9%	
proper sterilization of hand	No: 37%	No: 34%	0.000
pieces (autoclave) and opt for	I don't know: 32%	I don't know: 54%	
cold sterilization in between	Yes, sometimes: 9%	Yes, sometimes: 3%	
different patients?	,	,	
Is it mandatory to document	Yes: 51%	Yes: 42%	
patient blood borne pathogen	No: 14%	No: 8%	0.008
exposure?	I don't know: 20%	I don't know: 29%	
	Yes, sometimes: 15%	Yes, sometimes: 22%	
Do you know the procedure to	Yes: 36%	Yes: 46%	
follow after needle stick or	No: 24%	No: 18%	0.021
sharps injury?	I don't know: 24%	I don't know: 27%	0.021
	Yes, sometimes: 17%	Yes, sometimes: 10%	
Following a needlestick injury,	Suck wound then rub with	Suck wound then rub with	
	alcohol: 23%	alcohol: 21%	0.000
your first response is to:			0.000
	Run to closest physician: 29%	Run to closest physician: 19%	
	Scrub the wound: 14%	Scrub the wound: 33%	
In the last we set the set	Let it bleed while washing: 34%	Let it bleed while washing: 27%	
In the last month, how often	Never: 19%	Never: 11%	0.000
have you been upset because	Almost never: 11%	Almost never: 10%	0.000
of something that happened	Sometimes: 31%	Sometimes: 27%	
unexpectedly?	Fairly often: 24%	Fairly often: 11%	
	Often: 15%	Often: 41%	
In the last month, how often	Never: 17%	Never: 19%	
have you felt that you were	Almost never: 14%	Almost never: 15%	0.001
unable to control the important	Sometimes: 40%	Sometimes: 28%	
things in your life?	Fairly often: 15%	Fairly often: 10%	
	Often: 14%	Often: 28%	
In the last month, how often	Never: 8%	Never: 6%	
have you felt nervous and	Almost never: 9%	Almost never: 13%	0.002
"stressed"?	Sometimes: 37%	Sometimes: 27%	
	Fairly often: 23%	Fairly often: 16%	
	Often: 22%	Often: 38%	
In the last month, how often	Never: 9%	Never: 7%	
have you felt confident about	Almost never: 14%	Almost never: 13%	0.261
your ability to handle your	Sometimes: 35%	Sometimes: 31%	
personal problems?	Fairly often: 23%	Fairly often: 33%	
	Often: 19%	Often: 17%	
In the last month, how often	Never: 7%	Never: 5%	
have you felt that things were	Almost never: 15%	Almost never: 11%	0.061
going your way?	Sometimes: 35%	Sometimes: 48%	-1
gonig your way.	Fairly often: 22%	Fairly often: 17%	
	Often: 21%	Often: 18%	
In the last month, how often	Never: 13%	Never: 8%	
have you found that you could	Almost never: 15%	Almost never: 11%	0.063
not cope with all the things that	Sometimes: 35%	Sometimes: 38%	0.003
you had to do?	Fairly often: 20%	Fairly often: 29%	
you had to do!	Often: 18%	Often: 14%	
In the least results by			
In the last month, how often	Never: 6%	Never: 19%	0.000
have you felt that you were on	Almost never: 14%	Almost never: 13%	0.000
top of things?	Sometimes: 34%	Sometimes: 37%	
	Fairly often: 18%	Fairly often: 13%	
	Often: 29%	Often: 18%	
In the last month, how often	Never: 10%	Never: 8%	
have you been angered	Almost never: 13%	Almost never: 13%	0.111
because of things that were	Sometimes: 38%	Sometimes: 29%	
outside of your control?	Fairly often: 16%	Fairly often: 17%	

In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? Often: 23% Never: 7% Almost never: 17% Sometimes: 38% Fairly often: 17% Often: 21%

Never: 8% Almost never: 11% Sometimes: 33% Fairly often: 30% Often: 18%

Often: 34%

0.017

Table 2: Comparison of survey responses on the basis of academic level

Questions	4 th year	5 th year	6 th year	Postgraduate	p-value
Do you	Yes: 12%	Yes: 37%	Yes: 35%	Yes: 48%	
believe that	No: 41%	No: 21%	No: 9%	No: 30%	0.0
you have	I don't know:	I don't know:	I don't know:	I don't know:	00
enough	39%	14%	7%	3%	
knowledge	Yes,	Yes,	Yes,	Yes,	
concerning	sometimes:	sometimes:	sometimes:	sometimes:	
infection	9%	28%	49%	20%	
	970	20 /6	49 /0	20 /6	
prevention?	V 040/	V F00/	V 000/	V 050/	
Can	Yes: 21%	Yes: 59%	Yes: 88%	Yes: 85%	0.0
infectious	No: 3%	No: 10%	No: 0%	No: 8%	0.0
diseases be	I don't know:	I don't know:	I don't know:	I don't know:	00
transmitted	64%	15%	0%	5%	
during	Yes,	Yes,	Yes,	Yes,	
dental	sometimes:	sometimes:	sometimes:	sometimes: 2%	
procedure?	12%	16%	12%		
ls it	Yes: 18%	Yes: 52%	Yes: 81%	Yes: 68%	
mandatory	No: 6%	No: 16%	No: 2%	No: 24%	0.0
to use	I don't know:	I don't know:	I don't know:	I don't know:	00
personal	32%	14%	5%	2%	
protection	Yes,	Yes,	Yes,	Yes,	
tools during	sometimes:	sometimes:	sometimes:	sometimes: 6%	
every dental	44%	19%	12%		
procedure?					
Do you	Yes: 10%	Yes: 38%	Yes: 21%	Yes: 19%	
think	No: 9%	No: 25%	No: 42%	No: 56%	0.0
dentists can	I don't know:	I don't know:	I don't know:	I don't know:	00
reject	22%	18%	7%	2%	
treating a	Yes,	Yes,	Yes,	Yes,	
patient with	sometimes:	sometimes:	sometimes:	sometimes:	
a known	58%	19%	30%	23%	
infectious	0070	1070	30 70	2070	
disease					
(Hepatitis,					
HIV, etc)?					
1 /	Yes: 14%	Yes: 49%	Yes: 60%	Yes: 59%	
Do you think that	No: 5%	No: 18%	No: 5%	No: 11%	0.0
dentists	I don't	I don't	I don't	I don't know:5%	00
should	know:21%	know:12%	know:0%	Yes,	
always wear	Yes,	Yes,	Yes,	sometimes:	
goggles	sometimes:	sometimes:	sometimes:	25%	
during	60%	21%	35%		
dental					
procedures					
?					
ls it	Yes: 11%	Yes: 32%	Yes: 42%	Yes: 52%	
mandatory	No: 6%	No: 22%	No: 7%	No: 11%	0.0
for a patient	l don't know:	I don't know:	I don't know:	I don't know:	00
to wear	14%	17%	7%	8%	
goggles?	Yes,	Yes,	Yes,	Yes,	
	sometimes:	sometimes:	sometimes:	sometimes:	
	69%	29%	44%	29%	
Do you	Yes: 23%	Yes: 49%	Yes: 77%	Yes: 77%	
believe that	No: 34%	No: 14%	No: 2%	No: 10%	0.0
hands need	l don't know:	I don't know:	I don't know:	I don't know:	00
to be	9%	14%	0%	5%	
washed	Yes,	Yes,	Yes,	Yes,	
after glove	sometimes:	sometimes:	sometimes:	sometimes: 8%	
removal?	34%	22%	21%	226	
ls it wise to	Yes: 12%	Yes: 25%	Yes: 28%	Yes: 19%	
walk	No: 15%	No: 46%	No: 47%	No: 58%	0.0
beyond the	I don't know:	I don't know:	I don't know:	I don't know:	0.0
perimeter of	13%	17%	12%	3%	00
— perimeter of	1370	. 17 70	12/0	5,3	

your dental clinic wearing your procedure	Yes, sometimes:60 %	Yes, sometimes:	Yes, sometimes:	Yes, sometimes:	
wearing your procedure		sometimes:	sometimes:	sometimes:	
your procedure	%				
procedure	, •	12%	14%	19%	
gown?					
After	Yes: 51%	Yes: 52%	Yes: 79%	Yes: 82%	
logging in a	No: 3%	No: 16%	No: 2%	No: 11%	0.0
note on the	I don't know:	I don't know:	I don't know:	I don't know:	00
screen, do	10%	16%	2%	3%	
you think	Yes,	Yes,	Yes,	Yes,	
you must	sometimes:	sometimes:	sometimes:	sometimes: 3%	
change your	37%	15%	16%		
gloves?					
Do you	Yes: 53%	Yes: 59%	Yes: 77%	Yes: 85%	
change your	No: 5%	No: 20%	No: 7%	No: 3%	0.0
gloves after	I don't know:	I don't know:	I don't know:	I don't know:	00
receiving a	9%	9%	0%	6%	
phone call?	Yes,	Yes,	Yes,	Yes,	
	sometimes:	sometimes:	sometimes:	sometimes: 5%	
	33%	33%	16%	303	
ls it	Yes: 26%	Yes: 58%	Yes: 91%	Yes: 85%	
mandatory	No: 6%	No: 17%	No: 0%	No: 8%	0.0
to clean and	I don't know:	I don't know:	I don't know:	I don't know:	0.0
disinfect the	51%	17%	2%	5%	00
impression	Yes,	Yes,	Yes,	Yes,	
before	sometimes:	sometimes:	sometimes:	sometimes: 2%	
sending it to	17%	8%	7%	Joineumes. 2 /0	
the	17/0	070	1 /0		
tne laboratory?					
Can we	Yes: 46%	Yes: 25%	Yes: 12%	Yes: 52%	
					0.0
leave	No: 10%	No: 33%	No: 70%	No: 31%	0.0
extracted	I don't know:	I don't know:	I don't know:	I don't know:	00
teeth, on	38%	33%	9%	6%	
the	Yes,	Yes,	Yes,	Yes,	
instrument	sometimes:	sometimes:	sometimes:	sometimes:	
tray?	6%	10%	9%	11%	
Do we need	Yes: 78%	Yes: 63%	Yes: 88%	Yes: 89%	
to change	No: 7%	No: 20%	No: 0%	No: 6%	0.0
the suction	l don't know:	I don't know:	I don't know:	I don't know:	00
tip when it	5%	10%	0%	3%	
comes in	Yes,	Yes,	Yes,	Yes,	
contact with	sometimes:	sometimes:	sometimes:	sometimes: 2%	
a	10%	7%	12%		
contaminate					
d surface?					
Is there a	Yes: 13%	Yes: 48%	Yes: 67%	Yes: 82%	
difference	No: 5%	No: 13%	No: 2%	No: 8%	0.0
between	I don't know:	I don't know:	I don't know:	I don't know:	00
cold (spray)	80%	29%	26%	10%	
and heat	Yes,	Yes,	Yes,	Yes,	
(autoclave)	sometimes:	sometimes:	sometimes:	sometimes: 0%	
sterilization	2%	10%	5%		
of the air/					
water					
syringe?					
Do you	Yes: 7%	Yes: 17%	Yes: 9%	Yes: 19%	
believe you	No: 13%	No: 38%	No: 56%	No: 69%	0.0
can skip the	I don't know:	I don't know:	I don't know:	I don't know:	0.0
proper	78%	34%	3%	11%	00
sterilization	Yes,	Yes,	Yes,	Yes,	
of hand	sometimes:	sometimes:	sometimes:	sometimes: 0%	
pieces	2%	12%	2%	30mcmiles. 070	
(autoclave)	∠ /0	14 /0	270		
and opt for					
cold					
sterilization					
in between					
different					
patients?	.,			.,	
ls it	Yes: 15%	Yes: 45%	Yes: 72%	Yes: 82%	
mandatory	No: 5%	No: 19%	No: 0%	No: 10%	0.0
to document	I don't know:	I don't know:	I don't know:	I don't know:	00

Social borne pathopen Yes, sometimes: 3%	patient	42%	19%	23%	5%	
pathogen sometimes: somet						
De you		· ·		· ·	•	
Do you Yes; 12% Not 18% Ves; 53% Yes; 59% Not 18% O.0					301110111103. 370	
No. 19% Idon't know. Idon't kn					Voc: 70%	
to follow 41%. 23% 9% 9% 5% 5% 5% 16% 16 mover 1	-					0.0
for follow after needle stok or sometimes: yes, yes, yes, yes, yes, sometimes: sometimes						
after needle stick or sharps B% Sometimes: s						00
stick or sometimes: sometimes: sometimes: sometimes: 3% 19% 19% 19% 19% 19% 19% 19% 19% 19% 19						
sharps highpy						
Following a needlestick the rub with needlestick then rub with then rub with alcohol: 13% alcohol: 23% alcohol: 11% alcohol: 23% alcoho					sometimes: 3%	
Fellowing a needlestick injury; your alook: 11% then rub with alcohol: 13% alcohol: 24% alcoho		8%	20%	19%		
needlestek then rub with alcohol: 11% alcohol: 23% alcohol: 23% flirst response is physician: closest clo		_				
injury, your alcohol: 11% alcohol: 24% alcohol: 29% Run to closest first Run to closest Pun to Closest Into Run to closest physician: physician: physician: physician: 33% physician: 12% Scrub the wound: 51% beautiful to the wound: 17% beautiful washing: 37% beautiful washi						
first response is to: 8						
to: to: by: graphocian: 33%						00
to: Scrub the Scrub the Wound: 17% Scrub the Wound: 17% Left it bleed While washing: 5% Left it bleed While washing: 5% Left it bleed While washing: 5% While washing: 5% While washing: 43% While washing: 77% While washing: 5% While washing: 43% While washing: 77% Wh						
Scrub the wound: 51% Scrub the wound: 17% Let it bleed wound: 15% Let it bleed while washing: Let it bleed while washing: Whil		. ,				
Wound: 51% Left it bleed while washing:	to:					
Let it bleed wound: 16% washing: While washin						
while washing: 5% while washing: 43% while washing: 37% washing: 37% while washing: 43% while washing: 43% almost never: Almost never: 37% while washing: 500 while w						
In the last month, how admost never: Almost never: Almos			wound: 16%		while washing:	
In the last morth, how often have Never: 8% Never: 18% Never: 18% Almost never: Al		while washing:		while washing:	77%	
In the last Never: 8% Never: 16% Never: 16% Almost never: 0.0		5%		43%		
In the last Mover. 8% Mover. 16% Mever. 16% Almost never: Almost never: Almost never: 19% 19% 00						
month, how often have you been sometimes: Almost never: Almost never: 19% you been sometimes: Often: 3% Ofte			37%			
Otten have Outen have Out	In the last		Never: 16%	Never: 16%	Never: 11%	
Sometimes Sometimes Sometimes Sometimes Sometimes 11% 43% 63% 10% 10% 53% 10% 53% 10% 53% 10% 53% 10% 53% 53% 37%		Almost never:	Almost	Almost never:	Almost never:	0.0
Lipset 19% 43% 63% 63% 10% 52% 52% 53% 5	often have	7%	never: 13%	7%	19%	00
because of something to the something to something to the something to the something to the something to something to the som	you been	Sometimes:	Sometimes:	Sometimes:	Sometimes:	
Something that	upset	11%	43%	63%	10%	
Something that	because of	Fairly often:	Fairly often:	Fairly often:	Fairly often:	
that happened unexpectedl y? In the last month, how often have unable to control the 12% never: 7% never: 13% never: 0.0 never: 13% never: 0.0 never: 13% never: 0.0 netimes:	something					
happened unexpected y?		Often: 58%	Often: 13%	Often: 5%	Often: 3%	
In the last Never: 28% Never: 10% Never: 14% Never: 31% Almost never: Almost nev						
In the last Never: 28% Never: 20% Almost never: O.0						
In the last month, how offen have 16% 16% 12% 12% 14% 13%						
Month	,	Never: 28%	Never: 10%	Never: 14%	Never: 31%	
often have you felt that you get that you were you felt that you were a you were that you were you were that you you were that you you felt that you felt that you you felt that you often have the you felt that you you felt you						0.0
you felt that you were unable to purple the top were unable to purple the top unable to purple the the top unable the top unable to purple the top unable the top	*					
You were unable to control the unable to control the last unable to control the important things in your life?						•
unable to control the control the important important things in your life? Fairly often: 12% 12% 14% 13% 13% 13% 13% 14% Fairly often: 13% 13% 13% 13% 13% 14% 13% 13% 14% 15% In the last month, how often have you felt nave understand things in your life? Never: 8% Never: 7% Never: 5% Never: 5% Never: 5% Never: 5% Nometimes: Sometimes: Sometimes: Sometimes: Sometimes: Sometimes: Sometimes: Nometimes: Sometimes: Sometimes: Nometimes: Nome	•					
Control the important important things in your life?	_					
In the last nervous and Stressed"? Fairly often: 3% Never: 8% Never: 9% Never: 5% Never:						
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Manost never: Almost Almost never: Almost never: Almost never: O.0	,	Never: 8%	Never: 7%	Never: 5%	Never: 5%	
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16%						
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you felt Sometimes: Fairly often: Fairly often: Fairly often:	*					
confident about your about your Fairly often:						UU
about your ability to 43% 21% 23% 44% 44% Almost never: 0ften have your felt that things were going your personal projects of the personal shifts with the last things were going your personal projects of the personal proj	•					
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often have you felt that things were going your14%never: 16% Sometimes: 49%9%11% Sometimes: Sometimes: 47%9% Sometimes: 63%34% Sometimes: 34%Fairly often:Fairly often:Fairly often:Fairly often:						
you felt that things were going your Sairly often: Sometimes: Some						
things were 49% 47% 63% 34% going your Fairly often: Fairly often: Fairly often: Fairly often:						00
going your Fairly often: Fairly often: Fairly often: Fairly often:						
		-			-	
	way?	16%	22%	21%	25%	
Often: 17% Often: 9% Often: 2% Often: 20%						
In the last Never: 8% Never: 9% Never: 5% Never: 25%	In the last	Never: 8%	Never: 9%	Never: 5%	Never: 25%	

month, how often have you found that you could not cope with all the things that you had to do?	Almost never: 12% Sometimes: 25% Fairly often: 42% Often: 13%	Almost never: 12% Sometimes: 51% Fairly often: 22% Often: 7%	Almost never: 5% Sometimes: 70% Fairly often: 21% Often: 0%	Almost never: 8% Sometimes: 44% Fairly often: 20% Often: 3%	0.0
In the last month, how often have you felt that you were on top of things?	Never: 32% Almost never: 14% Sometimes: 23% Fairly often: 13% Often: 18%	Never: 8% Almost never: 15% Sometimes: 41% Fairly often: 21% Often: 14%	Never: 6% Almost never: 12% Sometimes: 71% Fairly often: 12% Often: 0%	Never: 5% Almost never: 13% Sometimes: 40% Fairly often: 19% Often: 23%	0.0 00
In the last month, how often have you been angered because of things that were outside of your control?	Never: 6% Almost never: 10% Sometimes: 24% Fairly often: 13% Often: 47%	Never: 12% Almost never: 20% Sometimes: 30% Fairly often: 22% Often: 16%	Never: 5% Almost never: 12% Sometimes: 52% Fairly often: 21% Often: 10%	Never: 11% Almost never: 15% Sometimes: 40% Fairly often: 23% Often: 11%	0.0
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	Never: 5% Almost never: 9% Sometimes: 20% Fairly often: 46% Often: 20%	Never: 13% Almost never: 16% Sometimes: 38% Fairly often: 21% Often: 11%	Never: 7% Almost never: 7% Sometimes: 70% Fairly often: 9% Often: 7%	Never: 15% Almost never: 16% Sometimes: 52% Fairly often: 13% Often: 5%	0.0

Table 3: Survey responses comparison on the basis of age groups

Questions	18-20 years	21-23 years	24-26 years	27-29 years	30+ years	p-value
Do you believe that you have	Yes: 13%	Yes: 21%	Yes: 34%	Yes: 47%	Yes: 34%	
enough knowledge concerning	No: 69%	No: 15%	No: 16%	No: 13%	No: 16%	0.000
infection prevention?	I don't know: 9%	I don't know: 39%	I don't know: 11%	I don't know: 16%	I don't know: 11%	
	Yes, sometimes:10%	Yes, sometimes:24%	Yes, sometimes:40%	Yes, sometimes:24%	Yes, sometimes:40	
Can infectious diseases be	Yes: 18%	Yes: 49%	Yes: 76%	Yes: 50%	Yes: 85%	
transmitted during dental procedure?	No: 5%	No: 6%	No: 8%	No: 13%	No: 8%	0.000
	l don't know: 59%	I don't know: 36%	I don't know: 10%	I don't know: 23%	I don't know: 5%	
	Yes, sometimes: 18%	Yes, sometimes: 9%	Yes, sometimes: 7%	Yes, sometimes: 15%	Yes, sometimes: 3%	
Is it mandatory to use personal	Yes: 12%	Yes: 47%	Yes: 67%	Yes: 55%	Yes: 56%	
protection tools during every dental procedure?	No: 9%	No: 7%	No: 8%	No: 18%	No: 33%	0.000
		I don't know:	I don't know:	I don't know:	I don't know:	

	I don't know: 9%	32%	10%	13%	8%	
	Yes, sometimes: 69%	Yes, sometimes: 14%	Yes, sometimes: 14%	Yes, sometimes: 15%	Yes, sometimes: 3%	
Do you think dentists can reject	Yes: 13%	Yes: 24%	Yes: 27%	Yes: 23%	Yes: 5%	
treating a patient with a known infectious disease	No: 6%	No: 16%	No: 23%	No: 35%	No: 77%	0.000
(Hepatitis, HIV, etc)?	I don't know: 9%	I don't know: 25%	I don't know: 17%	I don't know: 18%	I don't know: 10%	
	Yes, sometimes: 72%	Yes, sometimes: 35%	Yes, sometimes: 32%	Yes, sometimes: 24%	Yes, sometimes: 8%	
Do you think that dentists should	Yes: 11%	Yes: 30%	Yes: 49%	Yes: 44%	Yes: 56%	
always wear goggles during dental	No: 8%	No: 12%	No: 9%	No: 18%	No: 13%	0.000
procedures?	I don't know: 6%	I don't know: 22%	I don't know: 10%	I don't know: 16%	I don't know: 5%	
	Yes, sometimes: 74%	Yes, sometimes: 36%	Yes, sometimes: 32%	Yes, sometimes: 21%	Yes, sometimes: 26%	
Is it mandatory for a patient to wear	Yes: 8%	Yes: 25%	Yes: 39%	Yes: 35%	Yes: 46%	
goggles?	No: 11%	No: 12%	No: 9%	No: 23%	No: 3%	0.000
	I don't know: 9%	I don't know: 13%	I don't know: 14%	I don't know: 23%	I don't know: 15%	
	Yes, sometimes: 71%	Yes, sometimes: 51%	Yes, sometimes: 38%	Yes, sometimes: 19%	Yes, sometimes: 36%	
Do you believe that hands need	Yes: 25%	Yes: 40%	Yes: 54%	Yes: 48%	Yes: 77%	
to be washed after glove removal?	No: 57%	No: 7%	No: 8%	No: 21%	No: 8%	0.000
removar.	I don't know: 4%	I don't know: 12%	I don't know: 8%	I don't know: 23%	I don't know: 5%	
	Yes, sometimes: 14%	Yes, sometimes: 42%	Yes, sometimes: 31%	Yes, sometimes: 8%	Yes, sometimes: 10%	
Is it wise to walk beyond the	Yes: 18%	Yes: 17%	Yes: 20%	Yes: 18%	Yes: 31%	
perimeter of your dental clinic wearing your	No: 17%	No: 35%	No: 50%	No: 48%	No: 64%	0.000
procedure gown?	I don't know: 9%	I don't know: 13%	I don't know: 15%	I don't know: 16%	I don't know: 0%	
	Yes, sometimes:56%	Yes, sometimes: 36%	Yes, sometimes: 14%	Yes, sometimes: 18%	Yes, sometimes: 5%	
After logging in a note on the	Yes: 74%	Yes: 39%	Yes: 58%	Yes: 52%	Yes: 72%	
screen, do you think you must change your	No: 4%	No: 9%	No: 11%	No: 16%	No: 13%	0.000
gloves?	I don't know: 9%	I don't know: 10%	I don't know: 9%	I don't know: 19%	I don't know: 10%	
	Yes, sometimes: 13%	Yes, sometimes:	Yes, sometimes: 21%	Yes, sometimes:	Yes,	

		43%		13%	sometimes: 5%	
Do you change your gloves after	Yes: 76%	Yes: 42%	Yes: 60%	Yes: 48%	Yes: 84%	
receiving a phone call?	No: 6%	No: 10%	No: 6%	No: 19%	No: 5%	0.000
	I don't know: 11%	I don't know: 7%	I don't know: 10%	I don't know: 15%	I don't know: 8%	
	Yes, sometimes: 7%	Yes, sometimes: 41%	Yes, sometimes: 24%	Yes, sometimes: 18%	Yes, sometimes: 3%	
Is it mandatory to clean and	Yes: 28%	Yes: 51%	Yes: 71%	Yes: 50%	Yes: 79%	
disinfect the impression before	No: 8%	No: 8%	No: 8%	No: 26%	No: 8%	0.000
sending it to the laboratory?	I don't know: 59%	I don't know: 26%	I don't know: 13%	I don't know: 13%	I don't know: 8%	
	Yes, sometimes: 4%	Yes, sometimes: 15%	Yes, sometimes: 8%	Yes, sometimes: 11%	Yes, sometimes: 5%	
Can we leave	Yes: 71%	Yes: 23%	Yes: 21%	Yes: 26%	Yes: 44%	
extracted teeth, on the instrument tray?	No: 10%	No: 22%	No: 41%	No: 37%	No: 41%	0.000
	I don't know: 13%	I don't know: 43%	I don't know: 22%	I don't know: 24%	I don't know: 5%	
	Yes, sometimes: 6%	Yes, sometimes: 12%	Yes, sometimes: 16%	Yes, sometimes: 13%	Yes, sometimes: 10%	
Do we need to change the	Yes: 78%	Yes: 78%	Yes: 76%	Yes: 56%	Yes: 82%	
suction tip when it comes in contact	No: 6%	No: 8%	No: 12%	No: 21%	No: 10%	0.002
with a contaminated surface?	I don't know: 9%	I don't know: 5%	I don't know: 5%	I don't know: 19%	I don't know: 5%	
	Yes, sometimes: 6%	Yes, sometimes: 9%	Yes, sometimes: 7%	Yes, sometimes: 3%	Yes, sometimes: 3%	
Is there a difference	Yes: 14%	Yes: 36%	Yes: 58%	Yes: 55%	Yes: 72%	
between cold (spray) and heat	No: 5%	No: 8%	No: 5%	No: 26%	No: 8%	0.000
(autoclave) sterilization of the air/ water syringe?	I don't know: 79%	I don't know: 53%	I don't know: 30%	I don't know: 16%	I don't know: 21%	
	Yes, sometimes: 2%	Yes, sometimes: 4%	Yes, sometimes: 8%	Yes, sometimes: 3%	Yes, sometimes: 0%	
Do you believe you can skip the	Yes: 9%	Yes: 10%	Yes: 17%	Yes: 26%	Yes: 10%	
proper sterilization of hand pieces	No: 9%	No: 31%	No: 44%	No: 50%	No: 64%	0.000
(autoclave) and opt for cold sterilization in	I don't know: 78%	I don't know: 54%	I don't know: 35%	I don't know: 18%	I don't know: 23%	
between different patients?	Yes, sometimes: 3%	Yes, sometimes: 6%	Yes, sometimes: 5%	Yes, sometimes: 6%	Yes, sometimes: 3%	

Is it mandatory to document patient	Yes: 13%	Yes: 38%	Yes: 65%	Yes: 48%	Yes: 82%	
blood borne pathogen exposure?	No: 8%	No: 6%	No: 10%	No: 23%	No: 5%	0.000
	I don't know: 14%	I don't know: 46%	I don't know: 46%	I don't know: 21%	I don't know: 8%	
	Yes, sometimes: 66%	Yes, sometimes: 10%	Yes, sometimes: 10%	Yes, sometimes: 8%	Yes, sometimes: 5%	
Do you know the procedure to	Yes: 64%	Yes: 24%	Yes: 39%	Yes: 45%	Yes: 77%	
follow after needle stick or sharps injury?	No: 11%	No: 20%	No: 31%	No: 13%	No: 8%	0.000
,	I don't know: 16%	I don't know: 45%	I don't know: 16%	I don't know: 23%	I don't know: 10%	
	Yes, sometimes: 9%	Yes, sometimes: 11%	Yes, sometimes: 14%	Yes, sometimes: 19%	Yes, sometimes: 5%	
Following a needlestick injury,	Suck wound then rub with alcohol:	Suck wound then rub with	Suck wound then rub with	Suck wound then rub with	Suck wound then rub with	
your first response is to:	14%	alcohol: 23%	alcohol: 30%	alcohol: 19%	alcohol: 15%	0.000
	Run to closest physician: 20%	Run to closest physician: 30%	Run to closest physician: 19%	Run to closest physician: 23%	Run to closest physician: 8%	
	Scrub the wound: 63%	Scrub the wound: 26%	Scrub the wound: 12%	Scrub the wound: 18%	Scrub the wound: 3%	
	Let it bleed while washing: 4%	Let it bleed while washing:22%	Let it bleed while washing:38%	Let it bleed while washing:40%	Let it bleed while washing: 74%	
In the last month, how often have	Never: 9%	Never: 15%	Never: 9%	Never: 26%	Never: 18%	
you been upset because of something that	Almost never: 4%	Almost never: 9%	Almost never: 15%	Almost never: 15%	Almost never: 5%	0.000
happened unexpectedly?	Sometimes: 11% Fairly often: 15%	Sometimes: 24%	Sometimes: 35%	Sometimes: 48%	Sometimes: 34%	
	Often: 61%	Fairly often: 13%	Fairly often: 16%	Fairly often: 6%	Fairly often: 39%	
		Often: 39%	Often: 24%	Often: 5%	Often: 3%	
In the last month, how often have	Never: 5%	Never: 8%	Never: 6%	Never: 5%	Never: 5%	
you felt that you were unable to control the	Almost never: 2%	Almost never: 25%	Almost never: 8%	Almost never: 8%	Almost never: 8%	0.000
important things in your life?	Sometimes: 13%	Sometimes: 26%	Sometimes: 34%	Sometimes: 58%	Sometimes: 58%	
	Fairly often: 16%					
	Often: 65%	Fairly often: 15%	Fairly often: 16%	Fairly often: 16%	Fairly often: 16%	
		Often: 26%	Often: 36%	Often: 13%	Often: 13%	
In the last month, how often have	Never: 3%	Never: 10%	Never: 10%	Never: 5%	Never: 3%	
you felt nervous and "stressed"?	Almost never: 5%	Almost never: 17%	Almost never: 10%	Almost never: 26%	Almost never: 5%	0.000
	Sometimes: 11%	Sometimes:	Sometimes:	Sometimes:	Sometimes:	

	Fairly often: 65%	36%	39%	48%	28%	
	Often: 16%	Fairly often: 19%	Fairly often: 17%	Fairly often: 10%	Fairly often: 59%	
		Often: 18%	Often: 24%	Often: 11%	Often: 5%	
In the last month, how often have	Never: 3%	Never: 10%	Never: 10%	Never: 5%	Never: 3%	
you felt confident about your ability to handle your	Almost never: 5%	Almost never: 17%	Almost never: 10%	Almost never: 26%	Almost never: 5%	0.000
personal problems?	Sometimes: 11% Fairly often: 65%	Sometimes: 36%	Sometimes: 39%	Sometimes: 48%	Sometimes: 28%	
	Often: 16%	Fairly often: 19%	Fairly often: 17%	Fairly often: 10%	Fairly often: 59%	
		Often: 18%	Often: 24%	Often: 11%	Often: 5%	
In the last month,	Never: 4%	Never: 5%	Never: 7%	Never: 6%	Never: 5%	
how often have you felt that things were going your way?	Almost never: 3%	Almost never: 18%	Almost never: 12%	Almost never: 21%	Almost never: 5%	0.030
	Sometimes: 60% Fairly often: 18%	Sometimes: 39%	Sometimes: 42%	Sometimes: 39%	Sometimes: 39%	
	Often: 15%	Fairly often: 20%	Fairly often: 16%	Fairly often: 19%	Fairly often: 26%	
		Often: 19%	Often: 23%	Often: 15%	Often: 24%	
In the last month,	Never: 4%	Never: 9%	Never: 9%	Never: 13%	Never: 28%	
how often have you found that you could not cope with all the	Almost never: 2%	Almost never: 18%	Almost never: 9%	Almost never: 21%	Almost never: 5%	0.000
things that you had to do?	Sometimes: 15% Fairly often: 64%	Sometimes: 40%	Sometimes: 44%	Sometimes: 48%	Sometimes: 36%	
	Often: 16%	Fairly often: 18%	Fairly often: 16%	Fairly often: 11%	Fairly often: 26%	
		Often: 15%	Often: 22%	Often: 7%	Often FO/	
In the last month, how often have	Never: 51%	Never: 8%	Never: 5%	Never: 3%	Often: 5% Never: 5%	
you felt that you were on top of things?	Almost never: 5%	Almost never: 17%	Almost never: 13%	Almost never: 19%	Almost never: 8%	0.000
	Sometimes: 14%	Sometimes:	Sometimes:	Sometimes:	Sometimes:	
	Fairly often: 7%	42%	44%	42%	31%	
	Often: 23%	Fairly often: 15%	Fairly often: 15%	Fairly often: 13%	Fairly often: 31%	
		Often: 18%	Often: 24%	Often: 23%	Often: 26%	
In the last month, how often have	Never: 4%	Never: 10%	Never: 7%	Never: 10%	Never: 15%	
you been angered because of things that were outside	Almost never: 5%	Almost never: 16%	Almost never: 15%	Almost never: 19%	Almost never: 0%	0.000
of your control?	Sometimes: 8%	Sometimes:	Sometimes:	Sometimes:	Sometimes:	
	Fairly often: 9%	34%	36%	53%	38%	

	Often: 73%	Fairly often: 20%	Fairly often: 18%	Fairly often: 11%	Fairly often: 23%	
		Often: 20%	Often: 24%	Often: 6%	Often: 6%	
In the last month, how often have	Never: 4%	Never: 10%	Never: 7%	Never: 5%	Never: 13%	
you felt difficulties were piling up so high that you	Almost never: 6%	Almost never: 12%	Almost never: 16%	Almost never: 19%	Almost never: 15%	0.000
could not overcome them?	Sometimes: 13%	Sometimes:	Sometimes:	Sometimes:	Sometimes:	
	Fairly often: 56%	36%	36%	47%	54%	
	Often: 21%	Fairly often: 22%	Fairly often: 22%	Fairly often: 21%	Fairly often: 13%	
		Often: 21%	Often: 27%	Often: 8%	Often: 5%	

Table 4: Correlation between 'being upset during past month' and infection control protocol

Questions	In the last month, how often have you been upset because of something that happened unexpectedly?	Pearson's R
Do you believe that you have e	enough knowledge concerning infection prevention?	.088
Can infectious diseases be tra	ansmitted during dental procedure?	.210
Is it mandatory to use persona	Il protection tools during every dental procedure?	.298
Do you think dentists can reject	ct treating a patient with a known infectious disease (Hepatitis, HIV, etc)?	.408
Do you think that dentists shou	uld always wear goggles during dental procedures?	.384
Is it mandatory for a patient to	wear goggles?	.427
Do you believe that hands nee	ed to be washed after glove removal?	.269
Is it wise to walk beyond the pe	erimeter of your dental clinic wearing your procedure gown?	.345
After logging in a note on the s	creen, do you think you must change your gloves?	.193
Do you change your gloves aft	ter receiving a phone call?	.176
Is it mandatory to clean and dis	sinfect the impression before sending it to the laboratory?	.293
Can we leave extracted teeth,	on the instrument tray?	107
Do we need to change the suc	ction tip when it comes in contact with a contaminated surface?	089
Is there a difference between o	cold (spray) and heat (autoclave) sterilization of the air/ water syringe?	.245
Do you believe you can skip th sterilization in between differer	ne proper sterilization of hand pieces (autoclave) and opt for cold not patients?	.305
	atient blood borne pathogen exposure?	.216
Do you know the procedure to	follow after needle stick or sharps injury?	029
Following a needlestick injury,	your first response is to:	.024

Table 5: Correlation between 'unable to control things in life' and infection control protocol

Questions	In the last month, how often have you felt that you were unable to control the important things in your life?	Pearson's R
Do you believe that you have eno	.023	
Can infectious diseases be transi	mitted during dental procedure?	
le it mandatory to use personal pr	otection tools during every dental procedure?	.005
is it manuatory to use personal pr	otection tools during every dental procedure:	.121
	eating a patient with a known infectious disease (Hepatitis, HIV, etc)?	.286
	always wear goggles during dental procedures?	.161
Is it mandatory for a patient to wea		.149
Do you believe that hands need to		044
	neter of your dental clinic wearing your procedure gown?	.059
	en, do you think you must change your gloves?	146
Do you change your gloves after r		155
	ect the impression before sending it to the laboratory?	052
Can we leave extracted teeth, on		205
	tip when it comes in contact with a contaminated surface?	096
	(spray) and heat (autoclave) sterilization of the air/ water syringe?	.005
sterilization in between different p		.119
	nt blood borne pathogen exposure?	.119
	ow after needle stick or sharps injury?	149
Following a needle stick injury, yo	ur first response is to:	080

Table 6: Correlation between 'feeling nervous and stressed past month' and infection control protocol

Questions	In the last month, how often have you felt nervous and "stressed"?	Pearson's R
Do you believe that you	u have enough knowledge concerning infection prevention?	047
Can infectious disease	es be transmitted during dental procedure?	.014
Is it mandatory to use p	personal protection tools during every dental procedure?	.101
Do you think dentists c HIV, etc)?	an reject treating a patient with a known infectious disease (Hepatitis,	.213
Do you think that dentis	sts should always wear goggles during dental procedures?	.152
Is it mandatory for a pa	tient to wear goggles?	.148
Do you believe that har	nds need to be washed after glove removal?	.010
Is it wise to walk beyon	nd the perimeter of your dental clinic wearing your procedure gown?	.105
After logging in a note	on the screen, do you think you must change your gloves?	100
Do you change your gl	oves after receiving a phone call?	094

Is it mandatory to clean and disinfect the impression before sending it to the laboratory?	
	045
Can we leave extracted teeth, on the instrument tray?	
	211
Do we need to change the suction tip when it comes in contact with a contaminated surface?	
	121
Is there a difference between cold (spray) and heat (autoclave) sterilization of the air/ water	
syringe?	.035
Do you believe you can skip the proper sterilization of hand pieces (autoclave) and opt for cold	
sterilization in between different patients?	.169
Is it mandatory to document patient blood borne pathogen exposure?	
	.104
Do you know the procedure to follow after needle stick or sharps injury?	
	121
Following a needlestick injury, your first response is to:	
	050

Table 7: Correlation between 'feeling confident in handling personal problems' and infection control protocol

Questions		month, how often have you felt confident about your andle your personal problems?	Pearson's R
Do you believe that you ha	ave enough knowled	ge concerning infection prevention?	048
Can infectious diseases be	e transmitted during	dental procedure?	083
Is it mandatory to use person	sonal protection tools	during every dental procedure?	.045
Do you think dentists can re	reject treating a patie	ent with a known infectious disease (Hepatitis, HIV, etc)?	.209
Do you think that dentists s	should always wear	goggles during dental procedures?	.195
Is it mandatory for a patien	nt to wear goggles?		.144
Do you believe that hands	need to be washed	after glove removal?	.061
Is it wise to walk beyond th	ne perimeter of your	dental clinic wearing your procedure gown?	.013
After logging in a note on the	the screen, do you th	ink you must change your gloves?	.031
Do you change your gloves	s after receiving a ph	none call?	.010
Is it mandatory to clean and	nd disinfect the impre	ssion before sending it to the laboratory?	059
Can we leave extracted tee	eth, on the instrumer	nt tray?	149
Do we need to change the	suction tip when it c	omes in contact with a contaminated surface?	111
Is there a difference between	een cold (spray) and	heat (autoclave) sterilization of the air/ water syringe?	.002
Do you believe you can ski sterilization in between diffe		ation of hand pieces (autoclave) and opt for cold	.114
Is it mandatory to documen		e pathogen exposure?	.003
Do you know the procedure	re to follow after need	dle stick or sharps injury?	106
Following a needlestick inju	ury, your first respon	se is to:	091

Table 8: Correlation between 'inability of coping with things you do' and infection control protocol

Questions	In the last month, how often have you found that you could not cope with all the things that you had to do?	Pearson's R
Do you believe that you have eno	.069	
Can infectious diseases be trans	mitted during dental procedure?	.020
Is it mandatory to use personal pr	otection tools during every dental procedure?	.141
Do you think dentists can reject tr	eating a patient with a known infectious disease (Hepatitis, HIV, etc)?	.252
Do you think that dentists should	always wear goggles during dental procedures?	.211
Is it mandatory for a patient to we		.229
Do you believe that hands need to	b be washed after glove removal?	.158
Is it wise to walk beyond the perin	neter of your dental clinic wearing your procedure gown?	.109
After logging in a note on the scre	en, do you think you must change your gloves?	.119
Do you change your gloves after i	eceiving a phone call?	.065
Is it mandatory to clean and disinf	ect the impression before sending it to the laboratory?	.046
Can we leave extracted teeth, on	the instrument tray?	071
Do we need to change the suction	n tip when it comes in contact with a contaminated surface?	027
Is there a difference between cold	(spray) and heat (autoclave) sterilization of the air/ water syringe?	.084
Do you believe you can skip the p sterilization in between different p	roper sterilization of hand pieces (autoclave) and opt for cold atients?	.127
Is it mandatory to document patie	.064	
Do you know the procedure to foll	ow after needle stick or sharps injury?	019
Following a needlestick injury, you	ur first response is to:	181

Table 8: Correlation between 'feeling things going your way' and infection control protocol

Questions	In the last month, how often have you felt that things were going your way?	Pearson's R
Do you believe that you have	/e enough knowledge concerning infection prevention?	
		.038
Can infectious diseases be	transmitted during dental procedure?	122
Is it mandatory to use perso	onal protection tools during every dental procedure?	016
Do you think dentists can re	eject treating a patient with a known infectious disease (Hepatitis, HIV, etc)?	.146
Do you think that dentists s	.112	
Is it mandatory for a patient	to wear goggles?	.114
Do you believe that hands i	need to be washed after glove removal?	.134
Is it wise to walk beyond the	e perimeter of your dental clinic wearing your procedure gown?	009
After logging in a note on the	e screen, do you think you must change your gloves?	.178
Do you change your gloves	after receiving a phone call?	.176
Is it mandatory to clean and	disinfect the impression before sending it to the laboratory?	

	040
Can we leave extracted teeth, on the instrument tray?	
	017
Do we need to change the suction tip when it comes in contact with a contaminated surface?	
	064
Is there a difference between cold (spray) and heat (autoclave) sterilization of the air/ water syringe?	
	048
Do you believe you can skip the proper sterilization of hand pieces (autoclave) and opt for cold	
sterilization in between different patients?	.052
Is it mandatory to document patient blood borne pathogen exposure?	
	103
Do you know the procedure to follow after needle stick or sharps injury?	
	.059
Following a needlestick injury, your first response is to:	136

Table 9: Correlation between 'feeling on top of things' and infection control protocol

Questions	In the last month, how often have you felt that you were on top of things?	Pearson's R
Do you believe that you have e	enough knowledge concerning infection prevention?	.091
Can infectious diseases be tra	nsmitted during dental procedure?	203
Is it mandatory to use personal	protection tools during every dental procedure?	238
Do you think dentists can reject	t treating a patient with a known infectious disease (Hepatitis, HIV, etc)?	027
Do you think that dentists shou	lld always wear goggles during dental procedures?	072
Is it mandatory for a patient to	wear goggles?	048
Do you believe that hands need	d to be washed after glove removal?	.109
Is it wise to walk beyond the pe	erimeter of your dental clinic wearing your procedure gown?	226
After logging in a note on the so	creen, do you think you must change your gloves?	.231
Do you change your gloves after	er receiving a phone call?	.210
Is it mandatory to clean and dis	sinfect the impression before sending it to the laboratory?	161
Can we leave extracted teeth, or	on the instrument tray?	.147
Do we need to change the such	tion tip when it comes in contact with a contaminated surface?	.044
Is there a difference between c	old (spray) and heat (autoclave) sterilization of the air/ water syringe?	177
Do you believe you can skip the sterilization in between differen	e proper sterilization of hand pieces (autoclave) and opt for cold to patients?	136
	titent blood borne pathogen exposure?	309
Do you know the procedure to	follow after needle stick or sharps injury?	.175
Following a needlestick injury,	your first response is to:	166

Table 10: Correlation between 'angry with things outside control' and infection control protocol

Questions	In the last month, how often have you been angered because of things that were outside of your control?	Pearson's F
Do you believe that you ha	ave enough knowledge concerning infection prevention?	.007
Can infectious diseases b	be transmitted during dental procedure?	.054
Is it mandatory to use pers	sonal protection tools during every dental procedure?	.205
Do you think dentists can HIV, etc)?	reject treating a patient with a known infectious disease (Hepatitis,	.360
Do you think that dentists	should always wear goggles during dental procedures?	.324
Is it mandatory for a patier	nt to wear goggles?	.307
Do you believe that hands	need to be washed after glove removal?	.097
Is it wise to walk beyond the	he perimeter of your dental clinic wearing your procedure gown?	.163
After logging in a note on	the screen, do you think you must change your gloves?	041
Do you change your glove	es after receiving a phone call?	026
Is it mandatory to clean ar	nd disinfect the impression before sending it to the laboratory?	.072
Can we leave extracted te	eeth, on the instrument tray?	232
Do we need to change the	e suction tip when it comes in contact with a contaminated surface?	169
Is there a difference betwee syringe?	een cold (spray) and heat (autoclave) sterilization of the air/ water	.126
	rip the proper sterilization of hand pieces (autoclave) and opt for cold ferent patients?	.222
	nt patient blood borne pathogen exposure?	.205
Do you know the procedu	re to follow after needle stick or sharps injury?	138
Following a needlestick inj	jury, your first response is to:	057

Table 11: Correlation between 'not overcoming difficulties' and infection control protocol

Questions	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	Pearson's R
Do you believe that you h	ave enough knowledge concerning infection prevention?	.135
Can infectious diseases l	be transmitted during dental procedure?	.066
Is it mandatory to use per	sonal protection tools during every dental procedure?	.171
	reject treating a patient with a known infectious disease (Hepatitis, HIV, etc)?	.335
	should always wear goggles during dental procedures?	.328
Is it mandatory for a patie	nt to wear goggles?	.327
Do you believe that hands	s need to be washed after glove removal?	.255
Is it wise to walk beyond t	the perimeter of your dental clinic wearing your procedure gown?	.218
After logging in a note on	the screen, do you think you must change your gloves?	.164
Do you change your glove	es after receiving a phone call?	.167
Is it mandatory to clean a	nd disinfect the impression before sending it to the laboratory?	.092

Can we leave extracted teeth, on the instrument tray?	
	044
Do we need to change the suction tip when it comes in contact with a contaminated surface?	
	080
Is there a difference between cold (spray) and heat (autoclave) sterilization of the air/ water syringe?	
	.152
Do you believe you can skip the proper sterilization of hand pieces (autoclave) and opt for cold	
sterilization in between different patients?	.260
Is it mandatory to document patient blood borne pathogen exposure?	
	.147
Do you know the procedure to follow after needle stick or sharps injury?	
	.063
Following a needlestick injury, your first response is to:	111

DISCUSSION

We aimed to determine the level of knowledge regarding infection control and its association with perceived stress among dental students. Table 1 shows the relationship between gender and infection control with stress. It can be noted from the findings that there was a statistically significant difference between males and females when inquired about infectious diseases being transmitted during a dental procedure, mandatory to use personal protection tools, wearing goggles, washing hands, walking beyond the perimeters and many more variables. It was observed that the male students showed better knowledge towards the infection control protocol as compared to the females. However, a similar study done in Sana'a University revealed no significant difference between males and females (Halboub et al, 2015).

We also compared our study findings on the basis of academic years of dental students. We found highly significant comparisons where the senior dental students revealed better knowledge and attitude towards the infection control protocol as compared to the junior students. Similar findings were observed in another study conducted in Saudi Arabia, which revealed that the sixth year students exhibited a better level of attitude towards infection control (Al-Maweri et al, 2015). Furthermore, older aged students also reported a better level of knowledge as compared to younger students. However, no other study was found which compared the knowledge and attitude on the basis of age of participants.

An overall positive correlation was found when compared the participants' stress level during the past month with their knowledge and attitude towards infection control protocol. When inquired about feeling unable to control important things in life, a negative correlation was observed. Feeling nervous was also negatively associated with infection control. Confidence level was positively correlated with the infection control protocol. The overall positive correlation is observed in this study when relating high stress with low infection control maintenance. Similar findings were observed by a study conducted in Korea (Jang & Her, 2015).

CONCLUSIONS

It can be concluded from the findings that male students showed better knowledge and attitude towards the infection control protocol. Higher level students revealed better attitudes as compared to lower level students. There is a positive correlation between high stress and low level of infection control knowledge and attitude.

CONFLICT OF INTEREST

There is no conflict of interest among the authors.

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