# Importance of Dental Readiness in Military Professional

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# DEFENCE DENTAL SERVICES

Dental readiness refers to a service personnel's dental health as it relates to his worldwide deployment status and is fundamental in maintaining unit readiness and reducing non-combat casualties during deployment. Suboptimal levels of dental readiness will increase mobilization time, interfere with unit training and detract from forces' readiness.

Orofacial pain during training or deployment may have negative impact to combat readiness and eventually impedes the overall performances of the unit. Orofacial pain especially toothache is preventable through routine examination and scheduled treatment before deployment.

-AFMeCS,2021

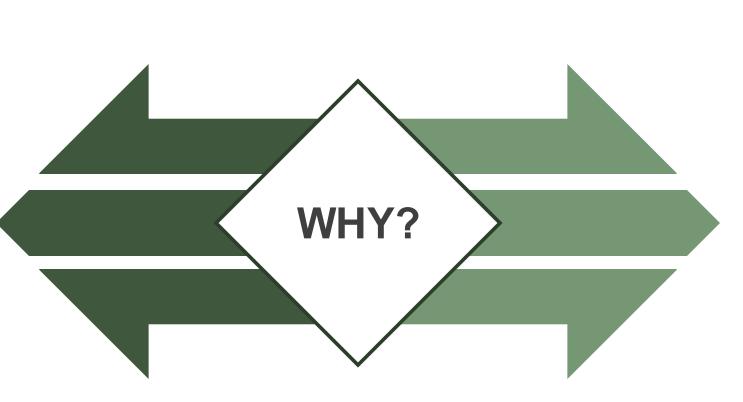
Royal Medical and Dental Corps (RMDC) Mission: To conserve the fighting strength of MAF through maintenance of health, prevention of diseases and care of the sick and wounded.

Health contributes directly to military readiness. A high state of health gives troops the fitness to fight, and thus medically ready to deploy.



## NON-COMBAT DUTY

Personal appearance is important-it demonstrates the pride, character and self-discipline as a soldier. Uniforms and decorations are only part of the appearance. To look like a soldier, it is needed to be physically and mentally fit to present a warrior look



## **COMBAT DUTY**

The importance of soldiers being able to fight without experiencing dental problems as well as reducing the risk of dental problems during military operations or mission deployment.

# HOW DENTAL HEALTH AFFECTS COMBAT READINESS : IN PAST HISTORY

# 1880 Boer War

>5,000 soldiers needed to be returned to the United Kingdom because they were unable to eat their "iron rations."

## 1940

#### World War II

Most common complaint listed by soldiers in their letters home was the Army's failure to replace their missing teeth prior to deployment.

## 1955

#### **Vietnam War**

Excluding injuries, dental complaints ranked second only to upper respiratory infections as a cause for lost duty time

## 1853

#### **Crimean War**

soldiers being unable to bite through cartridge paper to load their weapons or to chew the hard biscuits and salted meat that were their daily rations.

# 1914

#### World War I

Gen Douglas Hag developed excruciating toothache at height of the Battle of Aisne that the cost of their absence was realised. No one was able to treat Haig and he was forced to await a French dental surgeon from Paris.

### **1950** Korean War

6.5 percent of the replacements in a field artillery battalion needed emergency dental treatment upon arrival, and another 43 percent required urgent treatment of advanced dental conditions.

# 1991

#### **Persian Gulf War**

Operation Desert Shield and Storm. A large number of Reserve and Guard soldiers had to have extensive dental work completed to prepare them for deployment to the Persian Gulf.

Source



#### ABSTRACT

**Introduction** Periodontal disease ranges from simple gums inflammation to major damage to the periodontal tissues, even losing teeth. Severe periodontitis has a world overall prevalence of 11.2%. These are evaluated with periodontal probes and oral epidemiological indices. Our aim is to estimate the prevalence and severity of periodontal disease of a Spanish military population according to the 2013 WHO criteria.

**Methods** Observational study of prevalence carried out in a representative random sample of 221 military staff from the Spanish Army base 'Conde de Gazola'. Prevalence was estimated by calculating the Community Periodontal Index modified, loss of attachment, Plaque Index and Gingival Bleeding Index measured with a thirdgeneration electronic 'Pa-on' periodontal probe.

**Results** Averages of probing depth, recession and clinical attachment level were 2.17, 0.19 and 2.36 mm. Plague and gingival bleeding indices were 71% and

40.3%. All subjects bled in some tooth after probing. 3.6% of subjects had no periodontal pockets, 58.8% mild periodontal pockets and 37.1% severe periodontal pockets. All had some loss of attachment, 52% mild loss of attachment and 47.5% severe loss of attachment. Teeth present with and without bleeding were 24.4 (86.5%) and 3.6 (13.1%). 28% of teeth had periodontal pockets and 40.4% loss of attachment. Sextant averages

with periodontal pockets and loss of attachment were 2.79 and 3.56.

**Conclusions** Our plaque and gingival bleeding indices were high and we found a higher prevalence and severity of periodontal disease than other Spanish and foreign military populations. This could be related to differences in context, life habits and insufficient dental hygiene.

#### **Original research**

## Prevalence and severity of periodontal disease among Spanish military personnel

Millán Bárcena García,<sup>1</sup> J M Cobo Plana,<sup>2</sup> P I Arcos González<sup>3</sup>

# Oral health behaviors and dental caries in a sample of portuguese militaries

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<sup>a</sup> Institute of Health Sciences, Universidade Católica Portuguesa, Viseu, Portugal <sup>b</sup> CI&DETS, Polytechnic Institute of Viseu, Viseu, Portugal <sup>c</sup> Center for Interdisciplinary Research in Health (CIIS), Universidade Católica Portuguesa, Viseu, Portu



**Objectives:** To determine the prevalence of dental caries and oral health behaviors in a sample of the Portuguese army.

**Methods:** An observational cross-sectional study was conducted in a sample of army soldiers of the Infantry Regiment no. 14 of Viseu, Portugal, using a questionnaire. The study involved 122 members of the armed forces, who were asked to complete a questionnaire autonomously. The questionnaire enquired about general oral-health behaviors but focused mainly on: i) frequency of toothbrushing, ii) use of dental floss and iii) frequency of dental appointments. It also asked about sociodemographic information, like age and gender. An intra-oral observation was also conducted to determine the DMFT index and to record dental plaque based on the Silness and Löe plaque index (1964).

**Results:** The prevalence of dental caries was high (51.6%±7.4%; DMFT of 4.6±3.5). The most prevalent score of the Silness and Löe plaque index was score 2 - visible plaque (58.2%). Regarding oral hygiene habits, most of the sample reported brushing their teeth at least twice a day (65.6%) and using fluoride toothpaste (64.8%). However, very few participants (18%) used dental floss. More than 30% of the participants had not visited a dentist within the previous year. Furthermore, 45.9% were current smokers.

**Conclusion:** Prevention programs and promoting actions for oral health with these specific groups are important and should be adopted to reduce the prevalence of dental caries and to increases the knowledge about oral-health behaviors. (Rev Port Estomatol Med Dent Cir Maxilofac. 2018;59(1):18-23)

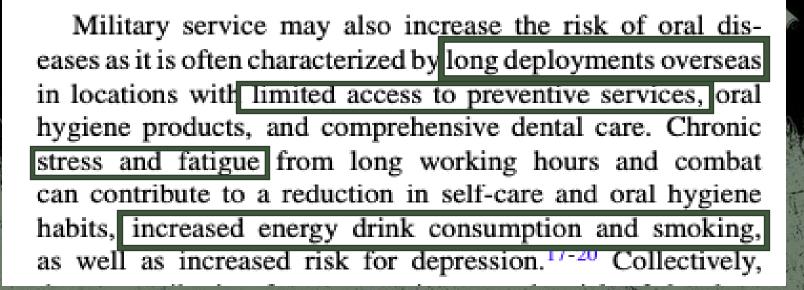
	Periodor		
Characteristics	No	Yes	p-value
	N (%)	N (%)	
Gender			
Male Female	12 (66.7) 6 (33.7)	113 (94.2) 7 (5.8)	0.002
Ethnicity	0 (33.7)	7 (0.0)	
Malay	5 (27.8)	41 (34.2)	0.592
Non-Malay	13 (72.2)	79 (65.8)	
Marital status	0 (00 0)		
Married Not married	6 (33.3) 12 (67.7)	25 (20.8) 95 (79.2)	0.236
Level of education	12 (07.7)	95 (19.2)	
Low	11 (61.1)	81 (67.5)	0.592
High	7 (38.9)	39 (32.5)	
Military rank	O(407)	00 (40 7)	4.000
Officer Subordinates	3 (16.7) 15 (83.3)	20 (16.7) 100 (83.3)	1.000
Service	10 (00.0)	100 (00.0)	
Soldier	12 (66.7)	73 (60.8)	0.610
Navy	6 (33.3)	41 (34.2)	
Air force	0 (0.0)	6 (5.0)	
Frequency of tooth brushing a day* Less than twice	2 (11.1)	2 (1.7)	_
At least twice	16 (88.9)	118 (98.3)	
Changing toothbrush			1
In 3 months More than 3 months	7 (38.9)	40 (33.3)	0.643
		90 (67 7)	
Flossing No	11 (61.1)	99 (82.5)	0.035
Yes	7 (38.9)	21 (17.5)	0.000
Mouth rinse			
No	7 (38.9)	55 (45.8)	0.581
Yes Visiting dental annually	11 (61.1)	65 (54.2)	
No	2 (11.1)	33 (27.5)	0.136
Yes	16 (88.9)	87 (72.5)	
Smoking status			
Never	11 (61.1)	33 (27.5)	0.011
Current Former	3 (7.8) 4 (4 4)	57 (47.5) 30 (25.0)	
Alcohol intake			
No	17 (94.4)	103 (85.8)	0.312
Yes	1 (5.6)	17 (14.2)	

Assessment of Periodontal Health Status Among the Military Personnel Visiting Kuching Armed Forces Dental Clinic, Sarawak (2020). Tengku Ahmad Noor, TNE., Jaafar A., Ramli HO., Bahari ZF

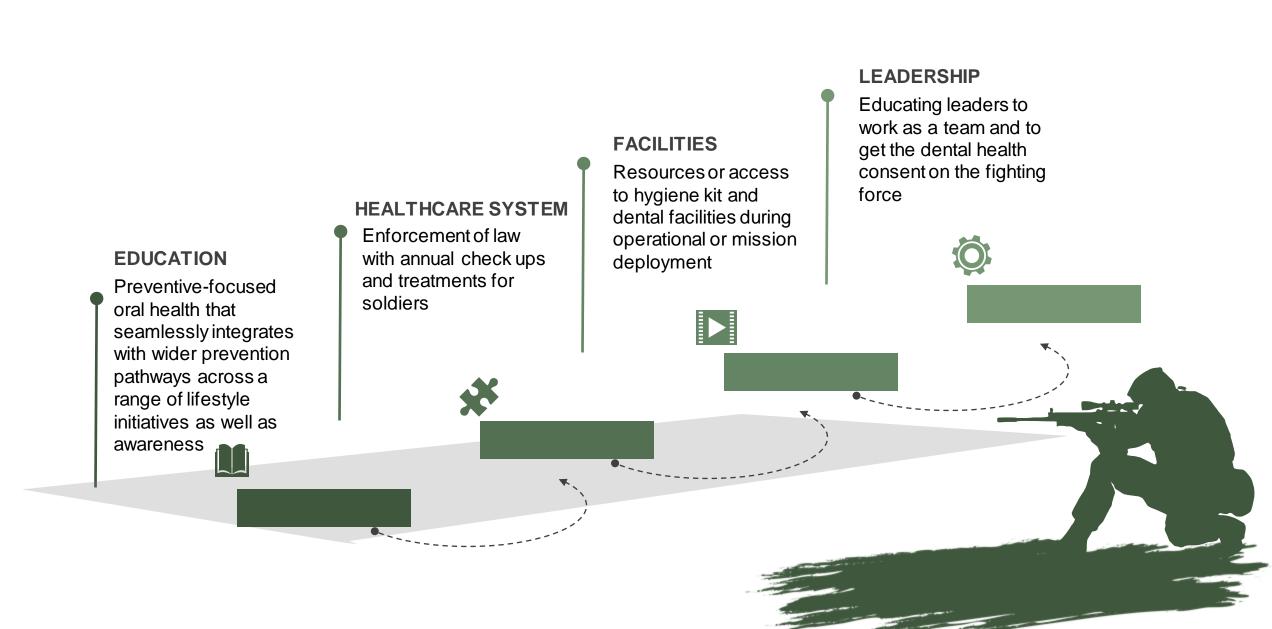
Periodontal status	Mean (SD)	N (%)	95% CI
Plaque index	1.82 (0.64)		
Healthy		1 (0.7)	0 to 2.2
Gingival bleeding		17 (12.3)	7.2 to 17.4
Shallow pocket (4- 5mm)		76 (55.1)	46.4 to 63.8
Deep pocket (≥6mm)		44 (31.9)	24.6 to 39.9

## Oral Health Status Among Adults With and Without Prior Active Duty Service in the U.S. Armed Forces, NHANES 2011-2014

Maj David K. Schindler, DC, USAF<sup>\*,†</sup>; Gabriela V. Lopez Mitnik, MS, MPhil<sup>†</sup>; Lt Col Aida M. Soliván-Ortiz DC, USAF<sup>\*</sup>; Lt Col Scott P. Irwin DC, USAF<sup>\*</sup>; Shahdokht Boroumand, DMD, MPH<sup>†</sup>; CAPT Bruce A. Dye, DC, USPHS (Ret.)<sup>†</sup>



# RECOMMENDATIONS



## OUR JOURNEY IN DENTAL READINESS • DSMAF, 1967 became part of RMDC 1st Oct 1958 Active Dental Support (ADS) Concept 1979 Targeted ADS in every Division 2009 FORWARD ADS in Operations Area 2012 Compulsory Dental Check Up during PULHEEMS 2013 Program 3P (Promosi Pendidikan Pergigian) 2015 ICDAS and CRA 202

Targeted ADS in every Division

PLECTH C.D.S. HCL

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# FORWARD ADS in Operations Area

# Compulsory Dental Check Up during PULHEEMS

TERHAD

Markas Angkatan Tentera Malaysia Bahagian Perkhidmatan Kesihatan Kementerian Pertahanan Tingkat 12, Bangunan Menara Park Megan Avenue II . Jalan Yap Kwan Seng 50450 KUALA LUMPUR

Tel : 03-21753008 Faks : 03-21627879

3 | Jul 13

MATM/BPK-SIHAT/PBG/3057

Lihat Agihan

#### ARAHAN PEMERIKSAAN PERGIGIAN SEMASA PEMERIKSAAN PERUBATAN TATADEMMOT BERKALA

Rujuk:

- A. AFMATI Arahan No 13.2.
- B. AFMATI Arahan No 19.2
- C. MATM/BPK-SIHAT/PP/3042 bertarikh 01 Jul 2013.

#### PENGENALAN

 Kesihatan warga tentera adalah salah salu faktor penyumbang kepada kesiapsiagaan perhidmatan ATM. Kesalutan gigi akan memberi kesan negatif kepada kepada kesihatan fizikal individu dan mengurangkan prestasi keseluruhan pasukan tersebut.

 Pemeriksaan pergigian semasa pemeriksaan perubatan TATADEMMOT berkala adalah merupakan sebahagian tindakan yang diambit bagi memastikan kesihatan pergigian berada pada tahap maksimum. Ianya dapat mempertingkatkan tahap kesiapsiagaan perkhidmatan ATM dan dapat diaturgerakkan pada sebitang masa.

 Walaubagaimanapun, perkara ini tidak dilaksanakan secara sistematik di peringkat pasukan dan ianya mengganggu kelicinan kesiapsagaan perkhidmatan ATM. Beberapa faktor penyumbang telah dikenalpasti dan langkah penambahbaikan diambil mengatasi masalah tersebut.

#### TUJUAN

 Arahan ini dikeluarkan agar pelaksanaan pemériksaan pergigian berkala semasa pemeriksaan penubatan TATADEMMOT berikata dapat dilakukan secara lebih sistematik oleh semua pihak.

#### TERHAD

#### OBJEKTIE

4. Pemeriksaan pergigian berkala ini adalah untuk:

 Mengenalpasti status Darjah Kesihatan Pergigian (Dental Readiness Classification (DRC)) setiap anggota tentera.

b. Memastikan pegawai dan anggota daripada pasukan tempur, tan pasukan khas seperti komando, penyelam, anggota payung terjun, kru penerbangan dan anak-anak kapal selam berada pada tahap kesihatan pergigian yang baik sebilang masa iaitu Darjah Kesihatan Pergigian Kolas 1 (DRC Class 1).

#### PELAKSANAAN

 <u>Pemeriksaan Pengigian</u> Semua pegawai dan anggota diwajibkan untuk menjalani pemeriksaan pergigian. Pemerintah pasukan perlu memastikan setap pegawai dan anggota menjalani pemeriksaan pergigian berkala ini.

 Kekerapan Pemeriksaan. Pemeriksaan berkala ini dilakukan mengikut kekerapan pemeriksaan perubatan TATADEMMOT berkala yang dijadualkan.

7. Tempat Pemeriksaan Pemeriksaan dilaksanakan PGAT pasukan atau Jabatan Pergigian HAT.

8. Pegawai Pemeriksa Pegawai Pergigian bertanggungjawab untuk melaksanakan pemeriksaan pergigian ini secara lengkap.

9. <u>Dokumentasi</u>. Buat masa ini keputusan pemeriksaan pergigian pertu diisi di dalam borang seperti di Kembaran A. Ianya hendaklah dikepilkan bersama BAT F 2 yang sedia ada dan direkodkan di dalam BAT F 3 dan aplikasi DRMS. BAT F 2 sedang dikaji untuk pindaan bagi memasukkan pemeriksaan pergigian.

 <u>Pemeriksaan Pergigian</u> Pemeriksaan pergigian hendaklah dilaksanakan sebelum menjalani pemeriksaan perubatan TATADEMMOT berkala. Tempoh sah DRC seorang anggota tentera adalah enam bulan. Tatacara pemeriksaan pergigian adalah secerti berkut:

a. <u>Begawai Pergigian</u> Pemeriksaan pergigian perlu dilakukan secara lengkap dan mengemaakini status DRC semua pegawai dan anggota tersebut. Rekod pergigian terkini hendaklah dicatatikan di dalam BAT F 3, apikasi DRMS dan borang seperti di Kembaran A dan dikepilkan bersama BAT F 2. Pesakit perlu dimaklumkan mengenai status kesihatan pergigian din diberkan temujanji untuk rawatan susulan sekiranya ada.

b. <u>Pegawai</u> <u>Perubatan</u> Menjalankan pemeriksaan perubatan TATADEMMOT setelah pemeriksaan pergigian diakukan. Pegawai Perubatan perlu memastikan status DRC pada pemeriksaan perubatan TATADEMMOT seterusnya adalah DRC Class f dan menasihati pesakit untuk mendapatkan rawatan pergigian.



Quality	D	Е	Ν	Т	Α	Р
Degree	THE A			THE A		T
		Class I : Dentally fit				5.65
and the second		Class	II: Dent	ally unfit	(Temp	orary)
DRC	until treatment completed					
		Class	III: Dent	ally unfit	for	
E CALCULA	Contract 1	deploy	ment	ALC: No		

D	E	Ν	Т	Α	Ρ
2	1	1	1	1	2









# ORAL HEALTH PROMOTION DURING 3P PROGRAM

# Added Values



**Mobile CAT** 

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Dental Readiness Management System



Oral health promotion posters

Di mata umuma Kita habata Kita sessika Kita barsaya. Serasam disosok kemas. Kasut disilap berkilat. Tubuh tasap. Walah menawan. Namun tiada maknanya, Jika sisi tiada.

Anda Bersedia?

In the eyes of the public We are known as a uniform body With smart appearance Shiny boots Handsome looks Muscular figure However, It will be useless if we have no teeth



# THANK YOU