Knowledge of Teachers and Parents About Emergency Management of Dental Trauma in Qassim Province, Saudi Arabia

Ali Abdulrahman Al-Zaidi¹, Ahmed Ali Al-asmari²

ABSTRACT

Introduction: Traumatic dent alveolar injuries are repeated in youngers and children, engaging to appearance of psychosocial problems and affecting their oral structures, teeth, soft tissues and alveolar bone. The most severe dent alveolar lesion is tooth avulsion that consider a dental emergency. The correct management of avulsed teeth requiring a well-trained and knowledgeable caretaker, that led to a good prognosis for the trauma. Objective: The present study was to measure the level of knowledge of parents and teachers concerning the emergency management of tooth avulsion.

Material and methods: We interviewed teachers and parents using put the number-item questionnaire. The data were collected by self-administered questionnaire. The questions were focused on the general data of teachers, experience of tooth avulsion and importance of emergency management. The data were analyzed using SPSS.

Results: A total of 200 teachers were interviewed, 170 agreed to respond with response rate 85%) When teachers have been asked if Dental trauma is part of the health education curriculum, 23.5% answered yes and 76.5% answered no, The awareness level was higher in the females than in the males. 46.9% of female answered yes but it was 26.6% in male. Experience of tooth avulsion at their school was reported by 32.4% of the teachers. A total of 200 parents were interviewed, 150 agreed to respond with response rate 75%) When asked if the health education curriculum contain Dental injuries, 25.3% of answered yes and 74.7% answered no, with no significant difference between male and female. Experience of female was more than male of tooth avulsion reported by 54.8%.

Conclusion: This study reveals the lack of Knowledge of Teachers and Parents About Emergency Management of Dental Trauma in Qassim Province, Saudi Arabia.

Keywords: Dental Trauma, Tooth Avulsion, Trauma Knowledge

INTRODUCTION

Dental trauma during adolescent and childhood leads to oral health problems, which can cause pain and tribulation. Dental trauma remains one of the important oral health problems in adolescent and childhood occurring mostly between the ages of 8 and 11 years. Traumatic dental injuries frequently occur in society mainly at schools and may occur at home. The ultimate prognosis of an avulsed tooth occurring in a child may depend on the parents or the teachers knowledge of appropriate emergency measures.

Few studies have investigated the knowledge of schoolteachers about the emergency management of traumatic dental injuries (TDI).^{4,5} In a study conducted in Asia, only 17.5% of investigated physical education teachers demonstrated the

ability to indicate suitable handling for an avulsed tooth.⁶ In another study in South America, elementary schoolteachers answered questions regarding dental avulsion intuitively rather than on an informed basis.⁷ Another study presented the shortage of knowledge of teachers on tooth avulsion.⁸ In Jordan, the school health teachers knowledge with regards to the emergency management of TDI cases was considered to be deficient.⁹

Similarly, children's parents have very little knowledge concerning what to do when the incident occurred at home. Certainly, insufficient studies have classified this question. In Singapore, a study displayed that information on some aspects of the management of avulsed teeth by caretaker was poor. ¹⁰ A study showed that 90% of parents in Nigeria would look for professional help urgently following an avulsion injury, but their awareness was poor about transport medium and they had never received a proper advice on what to do in the event of TDI. ¹¹

Instant emergency intervention followed by assessment and treatment at critical times during the healing phase that led to a suitable healing. Quick and appropriate treatment, together with long-term follow-up, lead to a favorable prognosis for the traumatized tooth. Dental traumatic injuries which frequently occur in society or at home, necessitates parents and teachers emergency knowledge for this procedure. So it is crucial to assess the level of knowledge of teachers and parents in Qassim Province, KSA

MATERIAL AND METHODS

A cross-sectional study was conducted among primary school teachers from 6 major cities in Al-Qassim Province. A total of 200 teachers were interviewed, 170 agreed to respond with response rate 85%. The questionnaire surveyed teachers' background, knowledge and management of tooth fracture, avulsion, and also investigated teachers' attitudes and self-assessed knowledge (Table 1). Also, A total of 200 parents were interviewed, 150 agreed to respond with response rate 75%). The questionnaire surveyed parents' background, knowledge and management of tooth fracture,

¹General Dentist, Private Dental Clinic, ²General Dentist, Ministry of Health, Riyadh, KSA.

Corresponding author: Ahmed Ali Al-Asmari P.O. Box 281222, Riyadh, K.S.A.

How to cite this article: Ali Abdulrahman Al-Zaidi, Ahmed Ali Al-asmari. Knowledge of teachers and parents about emergency management of dental trauma in qassim province, Saudi Arabia. International Journal of Contemporary Medical Research 2017;4(10):2131-2138.

Gender:
a. Male
b. Female
Age:
a.20-30
b.31-40
c.41-50
d.51-60
e.61-70
Is dental trauma a part of the health education curriculum in your school?
a. Yes
b. No
Is there any class about dental trauma in your school?
a. Yes
b. No
Did any kids fall in your class or school on his teeth?
a. Yes
b. No
If yes, how many cases?
a. 1-2
b. 3-4
c. 5 or more
Do you think a tooth can be completely knocked out?
a. Yes
b. No
If yes in question # 6, where did you find out?
a. Internet
b. School lectures
c. research
d. Your Dentist
e. dont know
Do you think primary teeth should be put back in, after they were knocked out?
a. Yes
b. No
Do you think permanent teeth should be put back in, after were knocked out?
a. Yes b. No
If the tooth has fallen on the ground and is dirty, what would you do? a. You clean it
b. You don't clean it
If you decide to clean the tooth, how would you hold it?
a. from crown
b. from root
c. from any part If the tooth is knocked out accidentally, When should it be put back in?
a. Immediately
, and the state of
b. During the first hour
c. During the first 6 hours
Your immediate emergency management of dental trauma is: a. contact parents and advice them to send child to the dentist immediately
b. reassure the child and send him/her back to class
c. not sure what to do
Do you think a tooth can be out of a person's mouth for a longer than an hour if stored in another way than dry storage?
a. Yes
b. No
What should you do if you cannot (or choose not to) put the tooth back in the mouth?
a. Put in a container with water
b. Put in a container with patient's saliva c. Put in a container with milk
d. Put in a container with Hank's balance solution
e. other

Table-1: Questionnaire, Knowledge of Teachers About Emergency Management of Dental Trauma

Gender:
a. Male
b. Female
Age:
a. 20-30
b. 31-40
c. 41-50
d. 51-60
e. 61-70
How many children do you have?
a. 1
b. 2
c. 3
d. 4
e.5 or more
Have you had any class about dental trauma?
a. Yes
b. No
Did any kids fall in your house on his teeth?
a. Yes
b. No
If yes, how many cases?
a. 1-2
b. 3-4
c. 5 or more
Do you think a tooth can be completely knocked out?
a. Yes
b. No
If yes in question # 6, where did you find out?
a. Internet
b. School lectures
c. research
d. Your Dentist
e. dont know
Do you think primary teeth should be put back in, after they were knocked out?
a. Yes
b. No
Do you think permanent teeth should be put back in, after were knocked out?
a. Yes
b. No
If the tooth has fallen on the ground and is dirty, what would you do?
a. You clean it
b. You don't clean it
If you decide to clean the tooth, how would you hold it?
a. from crown
b. from root
c. from any part
If the tooth is knocked out accidentally, When should it be put back in?
a. Immediately
b. During the first hour
c. During the first 6 hours
Your immediate emergency management of dental trauma is:
a. send child to the dentist immediately
b. send child to the dentist later
c. not sure what to do
Do you think a tooth can be out of a person's mouth for a longer than an hour if stored in another way than dry storage?
a. Yes
a. Yes h. No
b. No
b. No What should you do if you cannot (or choose not to) put the tooth back in the mouth?
b. No What should you do if you cannot (or choose not to) put the tooth back in the mouth? a. Put in a container with water
b. No What should you do if you cannot (or choose not to) put the tooth back in the mouth? a. Put in a container with water b. Put in a container with patient's saliva
b. No What should you do if you cannot (or choose not to) put the tooth back in the mouth? a. Put in a container with water b. Put in a container with patient's saliva c. Put in a container with milk
b. No What should you do if you cannot (or choose not to) put the tooth back in the mouth? a. Put in a container with water b. Put in a container with patient's saliva c. Put in a container with milk d. Put in a container with Hank's balance solution
b. No What should you do if you cannot (or choose not to) put the tooth back in the mouth? a. Put in a container with water b. Put in a container with patient's saliva c. Put in a container with milk

		Gender						
			Tale		male		otal	
		Count	Column N%	Count	Column N%	Count	Column N%	
awarness in schools	yes	31	26.6%	28	46.9%	59	23.5%	
	No	86	73.4%	25	53.1%	111	76.5%	
fall in class	yes	54	48.2%	20	34.5%	74	43.5%	
	No	58	51.8%	38	65.5%	96	56.5%	
times of fallness	0	58	51.8%	37	63.8%	95	55.9%	
	Yes	45	40.2%	10	17.2%	55	32.4%	
	No	6	5.4%	9	15.5%	15	8.8%	
	3	3	2.7%	2	3.4%	5	2.9%	
Protocol	yes	12	10.7%	7	12.1%	19	11.2%	
	No	100	89.3%	51	87.9%	151	88.8%	
Avulsion	yes	65	59.1%	40	61.7%	105	60.0%	
71 (4131011	No	47	40.9%	18	38.3%	65	40.0%	
How did u know avulsion	Internet	31	27.7%	28	48.3%	59	34.7%	
now did u know avuision	Schools	5			1.7%			
			4.5%	1		6	3.5%	
	Research	4	3.6%	0	0.0%	4	2.4%	
	Dentist	4	3.6%	2	3.4%	6	3.5%	
	I don't know	68	60.7%	27	46.6%	95	55.9%	
Reimplant dec	yes	8	7.1%	7	12.1%	15	8.8%	
	No	104	92.9%	51	87.9%	155	91.2%	
Reimplant perm	yes	46	41.1%	24	41.4%	70	41.2%	
	No	66	58.9%	34	58.6%	100	58.8%	
After avulsion	Clean	59	52.7%	37	63.8%	96	56.5%	
	Don't Clean	53	47.3%	21	36.2%	74	43.5%	
hold avulsed tooth	Crown	44	39.3%	20	34.5%	64	37.6%	
	Root	19	17.0%	9	15.5%	28	16.5%	
	any part	49	43.8%	29	50.0%	78	45.9%	
time to reimplant	immediate	50	44.6%	33	56.9%	83	48.8%	
	within 1 h	30	26.8%	9	15.5%	39	22.9%	
	within 6 h	32	28.6%	16	27.6%	48	28.2%	
immediate action	call parents, advise to visit dentist	89	79.5%	45	77.6%	134	78.8%	
minediate action	return back tp class after calm down	8	7.1%	4	6.9%	12	7.1%	
	Don't know	15	13.4%	9	15.5%	24	14.1%	
Dryness		68	60.7%	31	53.4%	99	58.2%	
Dryness	yes		39.3%	27	46.6%	71	41.8%	
1	No	44						
keep place	in water	36	32.1%	27	46.6%	63	37.1%	
	in saliva	0	0.0%	3	5.2%	3	1.8%	
	Milk	23	20.5%	10	17.2%	33	19.4%	
	Saline	26	23.2%	7	12.1%	33	19.4%	
	don't know	27	24.1%	11	19.0%	38	22.4%	
					ender			
			I ale		male		otal	
		Count	Column N%	Count	Column N%	Count	Column N%	
awarness in schools	yes	31	26.6%	28	46.9%	59	23.5%	
	No	86	73.4%	25	53.1%	111	76.5%	
fall in class	yes	54	48.2%	20	34.5%	74	43.5%	
1011 111 01000	No	58	51.8%	38	65.5%	96	56.5%	
times of fallness	0	58	51.8%	37	63.8%	95	55.9%	
times of failless		+						
	yes	45	40.2%	10	17.2%	55	32.4%	
	No	6	5.4%	9	15.5%	15	8.8%	
	3	3	2.7%	2	3.4%	5	2.9%	
Protocol	yes	12	10.7%	7	12.1%	19	11.2%	
	No	100	89.3%	51	87.9%	151	88.8%	
Avulsion	yes	65	59.1%	40	61.7%	105	60.0%	
	No	47	40.9%	18	38.3%	65	40.0%	

to be cont/-

		Gender					
		Male		Female		Total	
		Count	Column N%	Count	Column N%	Count	Column N%
How did u know avulsion	Internet	31	27.7%	28	48.3%	59	34.7%
	Schools	5	4.5%	1	1.7%	6	3.5%
	Research	4	3.6%	0	0.0%	4	2.4%
	Dentist	4	3.6%	2	3.4%	6	3.5%
	I don't know	68	60.7%	27	46.6%	95	55.9%
Reimplant dec	yes	8	7.1%	7	12.1%	15	8.8%
	No	104	92.9%	51	87.9%	155	91.2%
Reimplant perm	yes	46	41.1%	24	41.4%	70	41.2%
	No	66	58.9%	34	58.6%	100	58.8%
After avulsion	Clean	59	52.7%	37	63.8%	96	56.5%
	Don't Clean	53	47.3%	21	36.2%	74	43.5%
hold avulsed tooth	Crown	44	39.3%	20	34.5%	64	37.6%
	Root	19	17.0%	9	15.5%	28	16.5%
	any part	49	43.8%	29	50.0%	78	45.9%
time to reimplant	immediate	50	44.6%	33	56.9%	83	48.8%
	within 1 h	30	26.8%	9	15.5%	39	22.9%
	within 6 h	32	28.6%	16	27.6%	48	28.2%
immediate action	call parents, advise to visit dentist	89	79.5%	45	77.6%	134	78.8%
	return back tp class after calm down	8	7.1%	4	6.9%	12	7.1%
	Don't know	15	13.4%	9	15.5%	24	14.1%
Dryness	yes	68	60.7%	31	53.4%	99	58.2%
	No	44	39.3%	27	46.6%	71	41.8%
keep place	in water	36	32.1%	27	46.6%	63	37.1%
	in saliva	0	0.0%	3	5.2%	3	1.8%
	Milk	23	20.5%	10	17.2%	33	19.4%
	saline	26	23.2%	7	12.1%	33	19.4%
	don't know	27	24.1%	11	19.0%	38	22.4%

		Gender
Awarness in schools	Chi-square	6.399
	df	1
	Sig.	.011*
Fall in class	Chi-square	2.931
	df	1
	Sig.	.087
Times of fallness	Chi-square	11.747
	Df	3
	Sig.	.008*,b
Protocol	Chi-square	.071
	df	1
	Sig.	.790
Avulsion	Chi-square	.105
	df	1
	Sig.	.746
How did u know avulsion	Chi-square	8.929
	df	4
	Sig.	.063b
Reimplant dec	Chi-square	1.153
	df	1
	Sig.	.283

to	be	cont/-

		Gender
Reimplant perm	Chi-square	.001
	df	1
	Sig.	.969
After avulsion	Chi-square	1.920
	df	1
	Sig.	.166
Hold avulsed tooth	Chi-square	.608
	df	2
	Sig.	.738
Time to reimplant	Chi-square	3.303
	df	2
	Sig.	.192
Immediate action	Chi-square	.143
	df	2
	Sig.	.931
Dryness	Chi-square	.829
	df	1
	Sig.	.362
Keep place	Chi-square	11.045
	df	4
	Sig.	.026*,b
Table-4: Resul	ts of Chi-square of tea	chers

		Gender					
		M	ale	Female		Total	
		Count	Column N%	Count	Column N%	Count	Column N%
Awarness	yes	16	20.8%	22	30.1%	38	25.3%
	No	61	79.2%	51	69.9%	112	74.7%
Fall in house	yes	26	33.8%	38	52.1%	64	42.7%
	No	51	66.2%	35	47.9%	86	57.3%
Times of fallness	0	51	66.2%	33	45.2%	84	56.0%
	1- 2 times	22	28.6%	36	49.3%	58	38.7%
	3-4 times	3	3.9%	4	5.5%	7	4.7%
	5 or more times	1	1.3%	0	0.0%	1	0.7%
Avulsion	yes	52	67.5%	65	89.0%	117	78.0%
	No	25	32.5%	8	11.0%	33	22.0%
How did u know avulsion	Internet	14	18.2%	19	26.0%	33	22.0%
	Schools	6	7.8%	6	8.2%	12	8.0%
	Research	5	6.5%	0	0.0%	5	3.3%
	Dentist	6	7.8%	15	20.5%	21	14.0%
	I don't know	46	59.7%	33	45.2%	79	52.7%
Reimplant perm	yes	12	15.6%	16	21.9%	28	18.7%
1 1	No	65	84.4%	57	78.1%	122	81.3%
After avulsion	Clean	42	54.5%	49	67.1%	91	60.7%
	Don't Clean	35	45.5%	24	32.9%	59	39.3%
Hold avulsed tooth	Crown	34	44.2%	34	46.6%	68	45.3%
	Root	14	18.2%	14	19.2%	28	18.7%
	any part	29	37.7%	25	34.2%	54	36.0%
Time to reimplant	immediate	47	61.0%	39	53.4%	86	57.3%
1	within 1 h	14	18.2%	15	20.5%	29	19.3%
	within 6 h	16	20.8%	19	26.0%	35	23.3%
Immediate action	to dentist now	63	81.8%	65	89.0%	128	85.3%
	to dentist later	11	14.3%	6	8.2%	17	11.3%
	I don't know	3	3.9%	2	2.7%	5	3.3%
Dryness	yes	33	42.9%	41	56.2%	74	49.3%
	No	44	57.1%	32	43.8%	76	50.7%
Keep place	in water	30	39.0%	32	43.8%	62	41.3%
* *	in saliva	1	1.3%	5	6.8%	6	4.0%
	Milk	7	9.1%	11	15.1%	18	12.0%
	saline	19	24.7%	8	11.0%	27	18.0%
	don't know	20	26.0%	17	23.3%	37	24.7%

avulsion, and also investigated parents' attitudes and self-assessed knowledge (Table 2).

The questionnaire were close-ended questions. To help the caretaker make quick decision, they were given alternative choices, which like real situation with dental trauma. All returned questionnaires were coded and analyzed.

The research was conducted after it is approved from Students' Research Facilitation Committee and ethical Committee at college of dentistry- Qassim university.

STATISTICAL ANALYSIS

The analysis of data was carried out using Statistical Package for Social Sciences Computer Software (SPSS 21.0, Inc., Chicago, USA). Result were formulated as a number and percentage of respondents for each question and were analyzed using the SPSS software. The chi-square test was uttered to test the influence of different variables, such as gender, age, first aid training and teaching experience, on

knowledge of quick intervention of dental trauma, the level of significance was set at $P \le 0.05$ (equivalent to 5%).

RESULTS

A total of 200 teachers were interviewed, 170 agreed to respond with response rate 85%). The sample consisted of 112 males (65.8%) and 58 females (34.2%), The age group from 20-40 years represented 54.7% of the sample, followed by the 41-60 age group with 45.3%.

When teachers have been asked if Dental trauma is part of the health education curriculum, 23.5% answered yes and 76.5% answered no, the awareness level was higher in the females than in the males. 46.9% of female answered yes but it was 26.6% in male. Experience of tooth avulsion at their school was reported by 32.4% of the teachers, with no significant difference between male and female. 50.0% of the teachers think that a tooth can be knocked out, 34.7% of them found that by Internet, with no significant difference

		Gender
Awarness	Chi-square	1.735
	df	1
	Sig.	0.188
Fall in house*	Chi-square	5.124
	df	1
	Sig.	.024*
Times of fallness*	Chi-square	8.279
	df	3
	Sig.	.041*,b,c
Avulsion*	Chi-square	10.103
	df	1
	Sig.	.001*
How did u know avulsion*	Chi-square	11.656
	df	4
	Sig.	.020*,b
Reimplant perm	Chi-square	.990
	df	1
	Sig.	.320
After avulsion	Chi-square	2.484
	df	1
	Sig.	.115
Hold avulsed tooth	Chi-square	.190
	df	2
	Sig.	.909
Time to reimplant	Chi-square	.930
	df	2
	Sig.	.628
Immediate action	Chi-square	1.596
	df	2
	Sig.	.450b
Dryness	Chi-square	2.655
	df	1
	Sig.	.103
Kee place	Chi-square	8.244
	df	4
	Sig.	.083b
Table-6: Results o	f Chi-square of pa	rents

between male and female. 8.8% think that a primary tooth should be replanted and 91.2% answered no. Regarding permanent teeth 41.2% answered yes and 58.8% no. In case of an emergency 56.5% of the school teachers will clean the tooth and 43.5% don't. 78.8% of the participants will call parents, advise them to visit dentist. 58.2% think that a tooth can be out of a person's mouth for a longer that an hour. 37.1% will put the tooth in a container with water, 1.8% in a container with patient's saliva, 19.4% in a container with milk, 19.4% responded in a container with solution, and 22.4% responded other, with no significant difference between male and female (Tables 3,4).

A total of 200 parents were interviewed, 150 agreed to respond with response rate 75%) The sample consisted of 77 males (51.3%) and 73 females (48.7%), The age group from 20-40 years represented 68% of the sample, followed by the 41-60 age group with 32%.

When asked if the health education curriculum is containing dental trauma, 25.3% of answered yes and 74.7% answered

no, with no significant difference between male and female. Experience of female was more than male of tooth avulsion reported by 54.8%. (78%) of the parents think that a tooth can be knocked out, 22% of them found that by Internet, with no significant difference between male and female. 18.7% think that a primary tooth should be replanted and 81.3% answered no. Regarding permanent teeth, Reimplantation was chosen by female (59%) more than male (27.3%) In case of an emergency 60.7% of the parents will clean the tooth and 39.3% don't. 85.3% of the participants will visit dentist immediately. 49.3% think that a tooth can be out of a person's mouth for a longer that an hour and 41.3% will put the tooth in a container with water, 4.0% in a container with patient's saliva, 12.0% in a container with milk, 18.0% responded in a container with solution, and 24.7% responded other, with no significant difference between male and female (Tables 5,6).

DISCUSSION

According to the results of this study, 25.3% of parents would leave the avulsed tooth inside the mouth and it was similar of the study performed by Oliveira et al., 15 (32%), which indicates the shortage of awareness among parents. In the present study, only 18.7% of the parents were knowledge of the immediate reimplantation of an avulsed tooth, identical to a study reported by Al-Jundi, 14 whereas, the reports by Oliveira et al., 15 (39%), Raphael and Gregory³ (66.6%), and Hegde et al., 16 (66.5%) showed that some of the parents would reinserted the avulsed tooth, which obviously indicates the shortage in the knowledge about the correct immediate management of avulsed tooth. Therefore, the parent's necessity to be aware more in this aspect. purification of avulsed permanent teeth must be performed with saline solution just when visible filth is observed. Unfortunately, about 39.3% of the parents in the present study answered that they will not clean the avulsed tooth before going to the dentist and it was found to be slightly more (31%) when compared with the study by Oliveira et al. 15 When the immediate reimplantation is not performed, storage mediums that can save the pulpal and periodontal healing are sterile saline solution, milk, saliva, etc. But in the present study, most of the parents responded that they would wrap the avulsed tooth in water (41.3%), which was found to be different when compared to the studies reported by Oliveira et al.,15 and Hegde et al.16 The lack of experience and knowledge expressed by the parents answering the questionnaire concerning dental trauma reflects the need for more effective connection between dental professionals and caretakers to enable them to perform correctly when facing a case of dental avulsion. Additionally, preventive programs and educational campaigns on dental trauma must be organized to improve caregivers' awareness on emergency management of dental avulsion. The limitations of the present study are little of sample size and the trauma experienced individuals were less; so, the significance obtained in the present study cannot be extrapolated to the general population.

CONCLUSION

This study indicates a lack of knowledge of teachers and parents about emergency management of dental trauma and especially in tooth avulsion. Therefore, educational programs focused on these teachers and parents must be undertaken in order to improve their level of knowledge and their attitude.

REFERENCES

- 1. Kruthika Murali, Knowledge, attitude, and perception of mothers towards emergency management of dental trauma in Salem district. Jour. of Indian Soc. of Pedo. and Preventive dentistry 2014;7:23-29.
- Al-Obaida M. Knowledge and management of traumatic dental injuries in a group of Saudi primary school teachers. Dent Traumato. 2010;26:338-41.
- Abeer M. Abdellatif, Salwa A. Hegazy, Knowledge of emergency management of avulsed teeth among a sample of Egyptian parents, Journal of Advanced Research. 2011; 2, 157–162
- Panzarini SR, Pedrini D, Brandini DA, Poi WR, Santos MF, Correa JP et al. Physical education undergraduates and dental trauma knowledge. Dent Traumato 2005;21:324–8.
- Caglar E, Ferreira LP, Kargul P. Dental trauma management knowledge among a group of teachers in two south European cities. Dent Traumato 2005;21:258– 62.
- Chan AW, Wong TK, Cheung GS. Lay. knowledge of physical health education teachers about the emergency management of dental trauma. Dent Traumato 2001;17:77–85.
- Pacheco LF, Filho PF, Letra A, Menezes R, Villoria GE, Ferreira SM. Evaluation of the knowledge of the treatment of avulsions of elementary school teachers of Rio de Janeiro, Brazil. Dent Traumato 2003;19:76–8.
- 8. Mori GG, Turcio KHL, Borro VPB, Mariusso AM. Evaluation of the knowledge of tooth avulsion of school professionals from Adamantina, Sa Paulo, Brazil. Dent Traumato 2007;23:2–5.
- Al-Jundi SH, Al-Waeili H, Khairalah K. Knowledge and attitude of Jordanian school health teachers with regards toemergency management of dental trauma. Dent Traumato 2005;21:183–7.
- 10. Sae-Lim V, Lim LP. Dental trauma management awareness of Singapore pre-schoolteachers. Dent Traumato 2001;17:71–6.
- 11. Mori GG, Turcio KH, Borro VP, Mariusso AM. Evaluation of the knowledge of tooth avulsion of school professionals from Adamantina, São Paulo, Brazil. Dent Traumato 2007;23:2-5.
- 12. Rodney JV, Robert G. Public school educator's knowledge of initial management of dental trauma. Dent Traumato 2010;26:133–136.
- 13. Chan AWK, Wong TKS, Cheung GSP. Lay knowledge of physical education teachers about the emergency management of dental trauma in Hong Kong. Dent Dent Traumato 2001;17:77–85.
- Oliveira TM, Sakai VT, Moretti AB, Silva TC, Santos CF, Machado MA. Knowledge and attitude of mothers with regards to emergency management of dental avulsion. Dent Traumato 2007;74:200-2.

- 15. Al-Jundi SH. Knowledge of Jordanian mothers with regards to emergency management of dental trauma. Dent Traumato 2006;22:291-5.
- 16. Hegde AM, Kumar KN, Varghese E. Knowledge of dental trauma among mothers in Mangalore. Dent Traumato 2010;26:417-21.
- Noguera, Alberto. Elementary School Teachers and their knowledge of tooth Replantation, Nova Southeastern University. Fort Lauderdale, Florida, Dent Traumato 2009

Source of Support: Nil; Conflict of Interest: None

Submitted: 02-10-2017; Accepted: 01-11-2017; Published: 12-11-2017