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Parental attitude, common knowledge and awareness towards COVID -19 after opening of lockdown in Kashmir

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Abstract

Background: Self-medication may be defined as consumption of medicines without consultation with a doctor or dentist and has become a serious issue during the COVID-19 pandemic and very less data related to the self-medication of children by their parents during the COVID 19 pandemic for dental issues is available till now. The present study aims to evaluate the parent's attitude, knowledge and awareness practices regarding self-medication of their children during COVID-19 pandemic.

Methodology : A cross sectional survey was carried in the pediatric department in Kashmir immediately after the opening of the COVID 19 lockdown and 200 parents agreed to participate in the study the data was collected and analyzed using descriptive analytic statistics and expressed as graphs.

Results: The majority of children were self-medicated for the dental problems and analgesics was the most commonly self-medicated drug for treating dental issues. Self-medication was found to be done on local pharmacist advice among above 50 years age group and

from previous prescription among parents of 30-39 years age group.

Conclusion: The prevalence of self-medication practices for children in Kashmir was high during the COVID 19 pandemic .Teledentistry will help in overcoming problems related to the self-medication when the parents were unable to get their children to the health care providers due to limited accessibility.

Keywords: Teledentistry, COVID 19, Self medication

Introduction

Corona virus disease outbreak was first reported in Wuhan China in December 2019 and as soon as the pandemic broke out as it involved the rest of the world leading to a global health emergency which also affected the dental care leading to patients self-medicating themselves and their kids and introduction of Teledentistry .[1] During the pandemic toothaches abscesses with systemic complaints, dental trauma and life threatening or uncontrolled bleeding were defined as oral emergencies and were addressed in the dental setup whereas elective procedures and non-urgent dental treatments be delayed and rescheduled by oral health care providers.[2]

Self-medication may be defined as "taking of drugs, home herbs or home remedies by a person on its own initiative or an advice of another person without consulting a doctor'' and it's mostly influenced by many factors such as lack of knowledge regarding the side effects of the medicines, social economic status of the population, difficulties assessing health care services in an area, epidemic diseases and patients believes and norms related to diseases .[3,4]

On the basis of accessibility the non-prescription medicines are classified as over the counter drugs (OTCs) which are used to relieve simple ailments and sold directly to patients without seeing healthcare professional like vitamin supplements, antacids, decongestant and behind the counter drugs (BTCs) which are intermediate category of medicines between OTC and prescription medicines and they have certain restrictions and certain antibiotics and narcotic analgesics aren't available without doctor's prescription .[5]

The aim of the study is to evaluate the parent's knowledge, attitudes and practices regarding the COVID 19 pandemic during which they self-medicated their children for addressing dental problems in Kashmir.

Methodology

A cross sectional survey was carried out between July 2021 to September 2021 after opening of lockdown after the second wave of COVID-19 pandemic on 200 patients parents. The parents of children aged between 2 years to 12 years who visited the OPD of Pediatric Dental Department of Government Dental College Srinagar were eligible to participate in the cross sectional survey after ethical clearance was obtained from the said institution and they were asked about the questions mentioned in the survey. The data was collected for 200 parents and subjected to statistical analysis. Before the pandemic almost 150 patients visited OPD of the Pediatric department daily but during the pandemic there was a decline to 5 to 10 pediatric patients visiting the department for oral health care needs.

Data Collection

The questions were administered to the parents of the children visiting OPD of the Pediatric department by chief investigator. The inclusion criteria included children age between 2-12 years of age who visited the OPD of the pediatric clinic and whose parents agreed to participate in the study .The exclusion criteria included those parents whose children had special healthcare

needs , or where medically or systemically compromise illiterate and mentally incapacitated to give valid response to questions or refused from participating in the study .The questionnaires were framed by adopting questions from the previous surveys.

Questionnaire

1.Parents gender	Male	Female		
2.Age group	a) 20 -29 years	b) 30 -39 years	c)40 -49 years	d)over 50 years
3. Did you pay attention to COVID-19 and follow precautions at home?	a) Always	b) Occasionally	c) never	
4. Did you explain COVID 19 to your child /children and importance of using mask and hand hygiene at home and when in public ?	a) Often	b) Occasionally	c) Never	
5. Does the environment of the dental hospital see more dangerous in others public places and chances of exposure to COVID-19 seems to be more in the hospital setting for dental treatment ?	a)yes	b)similar to risk in other places	c)no	
6. What according to you might be the route of infection transmission?	a)Droplets	b)Blood	c) Instruments	d)Dentist themselves
7. Will you prefer a telephonic appointment over a dentist visit for treating your child's toothache?	a) Yes	b) No	c) May be	
8. The dental hospital is taking a lot of protective measures according to the requirements of the health committee including patient screening, hospital environment, and personal protective environments for patient and parents. Do these measures boost up your confidence?	a) Yes	b) No		
9. Did you ever self-medicate your child for the tooth related problems during the pandemic and if yes how? a)Yes b)No	i) on local pharmacist advice	ii)on advice from acquaintances or relatives	iii)from previous prescription	iv) from Internet and advertisements
10.If you ever self-medicated when did	a. Whenever	b. As soon as the	c. The older	

you stop prescribing the medication?	the medication ran out	symptoms disappeared	prescription showed that the number of days and we followed the same	
11. Which medicine you mostly self-medicated for toothache ?	a. Analgesics	b. Antibiotics	c. Vitamins	
12. Are you aware of the self-medication side effects? a)Yes b)No	i)gastrointestinal side effects	ii)allergic reaction	iii) systemic problem	iv)headaches fever fatigue v) tooth discoloration
13.Why did you self medicate ?	a) Lack of time	b)Economic reasons	c) Difficulty in accessibility due to COVID-19	
14. What is your highest level of education completed?	a) Junior college	b) Under graduation	c)Post graduation	

Table 1: Questionnaire of study

Statistical Analysis

The data was statically analyzed using the SPSS software version and descriptive analysis was performed for demographic data the statistical significance was set as p value < 0.05.

Results

A total of 199 parent participants completed the questionnaire amongst 200 during the study period. Among higher age groups, the proportion of male respondents was found to be significantly **(Figure1)** higher than that of female respondents (**Table 2, Q1, Q2).**

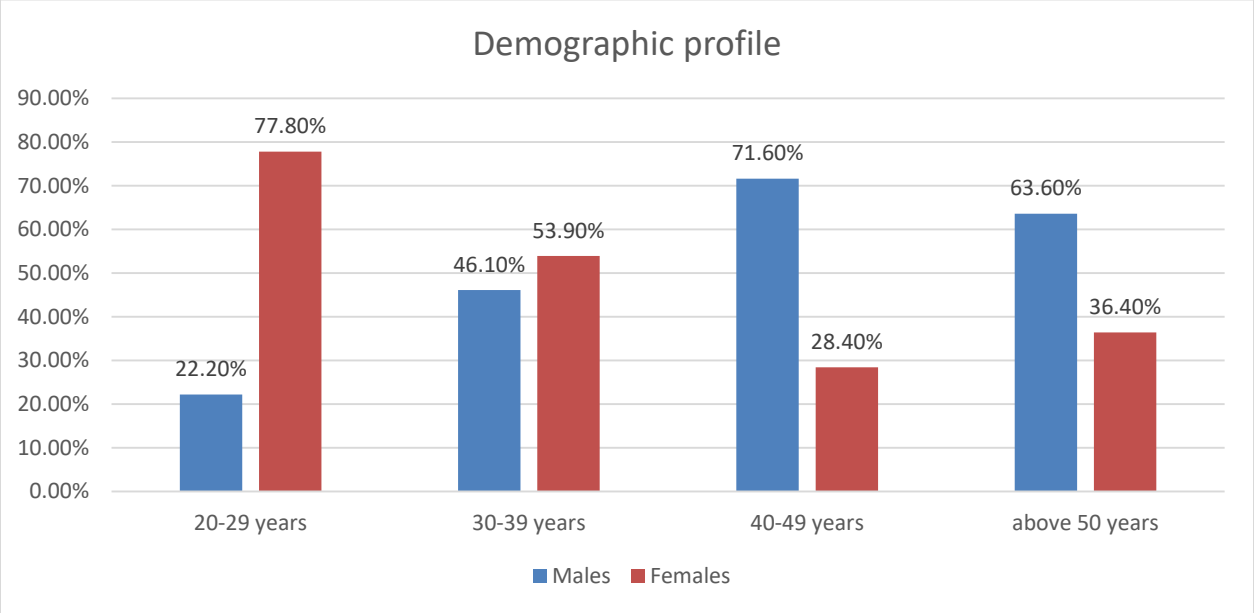

Figure 1: Age wise and Gender wise graph depicting demographic data

			Q1		Total
			Males	Females	
Age group	20-29 years	N	4	14	18
		%	22.2%	77.8%	100.0%
	30-39 years	N	41	48	89
		%	46.1%	53.9%	100.0%
	40-49 years	N	58	23	81
		%	71.6%	28.4%	100.0%
	Above 50 years	N	7	4	11
		%	63.6%	36.4%	100.0%
Total		N	110	89	199
		%	55.3%	44.7%	100.0%
P value			<0.001, S		

Table 2: Age wise and Gender wise tabular representation depicting demographic data

In response to Q3, significantly higher number of parents responded as always when asked did they pay attention to COVID-19 and follow precautions at home as compared to those who responded as 'never' (**Table 3) (Figure 2).**

			Q3			Total
			Always	Occasionally	Never	
Age group	20-29 years	N	10	7	1	18
		%	55.6%	38.9%	5.6%	100.0%
	30-39 years	N	38	50	1	89

		%	42.7%	56.2%	1.1%	100.0%
	40-49 years	N	26	55	0	81
		%	32.1%	67.9%	0.0%	100.0%
	Above 50 years	N	0	8	3	11
		%	0.0%	72.7%	27.3%	100.0%
Total		N	74	120	5	199
		%	37.2%	60.3%	2.5%	100.0%
P value			<0.001, S			

Table 3: Tabular representation of parents who paid attention to COVID 19 at home

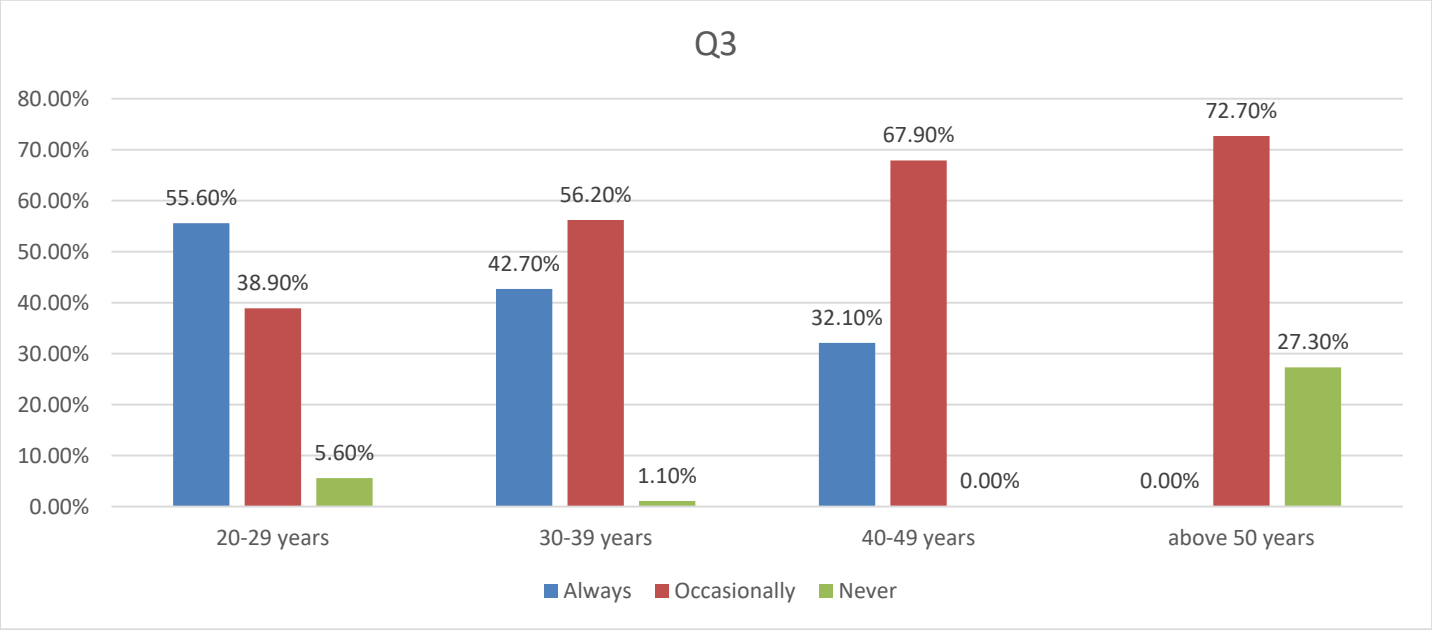

Figure 2: Graph representing parents who paid attention to COVID 19 at home

In response to the question whether they explained COVID 19 to their child /children and importance of using mask and hand hygiene at home and when in public significantly higher proportion of subjects in above 50 years age group responded as 'Never'**(Table 4)(Figure 3).**

			Q4			Total
			Often	Occasionally	Never	
Age group	20-29 years	N	10	7	1	18
		%	55.6%	38.9%	5.6%	100.0%
	30-39 years	N	35	52	1	88
		%	39.8%	59.1%	1.1%	100.0%
	40-49 years	N	16	65	0	81
		%	19.8%	80.2%	0.0%	100.0%
	Above 50 years	N	1	9	1	11

		%	9.1%	81.8%	9.1%	100.0%
Total		N	62	133	3	198
		%	31.3%	67.2%	1.5%	100.0%
P value			0.001, S			

Table 4: Tabular representation of respondents response whether they explained COVID 19 to their child /children and importance of using mask and hand hygiene at home and when in public

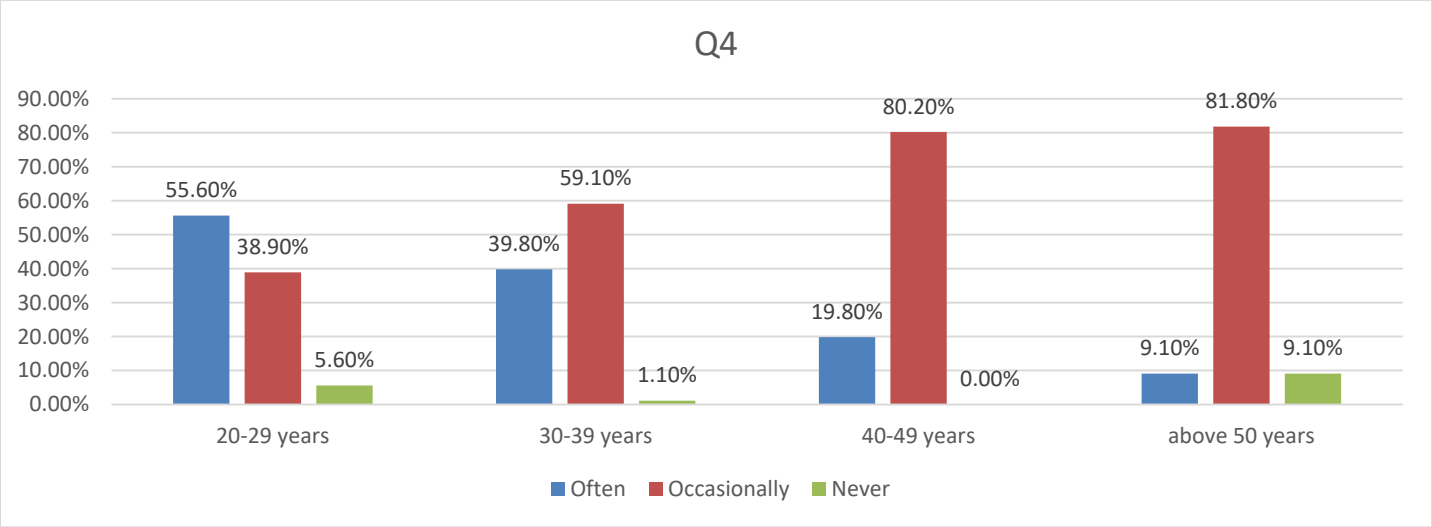

Figure 3: Graph representing response whether they explained COVID 19 to their child /children and importance of using mask and hand hygiene at home and when in public

Responses by parents to the question does the environment of the dental hospital see more dangerous in others public places and chances of exposure to COVID-19 seems to be more in the hospital setting for dental treatment did not differ significantly among different age groups **(Table 5).**

			Q5			Total
			Yes	Similar risk to other places	No	
Age group	20-29 years	N	10	5	3	18
		%	55.6%	27.8%	16.7%	100.0%
	30-39 years	N	44	34	10	88
		%	50.0%	38.6%	11.4%	100.0%
	40-49 years	N	38	34	9	81
		%	46.9%	42.0%	11.1%	100.0%
	Above 50 years	N	4	3	4	11
		%	36.4%	27.3%	36.4%	100.0%
Total		N	96	76	26	198
		%	48.5%	38.4%	13.1%	100.0%
P value			0.329, NS			

Table 5: Tabular representation of respondents response whether they explained COVID 19 to their child /children and importance of using mask and hand hygiene at home and when in public

In response to Q6, among younger age groups, significantly higher proportion perceived droplets or blood, as route of infection, while among older age groups, significantly higher proportion perceived that instruments and dentists themselves as route of infection (**Table 6).**

Q 6						
			droplets	Blood	Instruments	Dentists themselves
Age group	20-29 years	N	17	0	3	1
		%	94.4%	0.0%	16.7%	5.6%
	30-39 years	N	55	34	19	9
		%	61.8%	38.2%	21.3%	10.1%
	40-49 years	N	36	31	34	10
		%	44.4%	38.3%	42.0%	12.3%
	Above 50 years	N	2	5	6	3
		%	18.2%	45.5%	54.5%	27.3%
Total		N	110	70	62	23
		%	55.3%	35.2%	31.2%	11.6%
P value			<0.001	0.012, S	0.005, S	0.318, NS

Table 6: Tabular representation of route of infection transmission

In response to Question Will they prefer a telephonic appointment over a dentist visit for treating their childs toothache q7, among 20-29 years age group and above 50 years age group, majority responded as ‘no’, while, among remaining two age group, majority responded as ‘yes’ and p value was 0.003 **(Figure 4).**

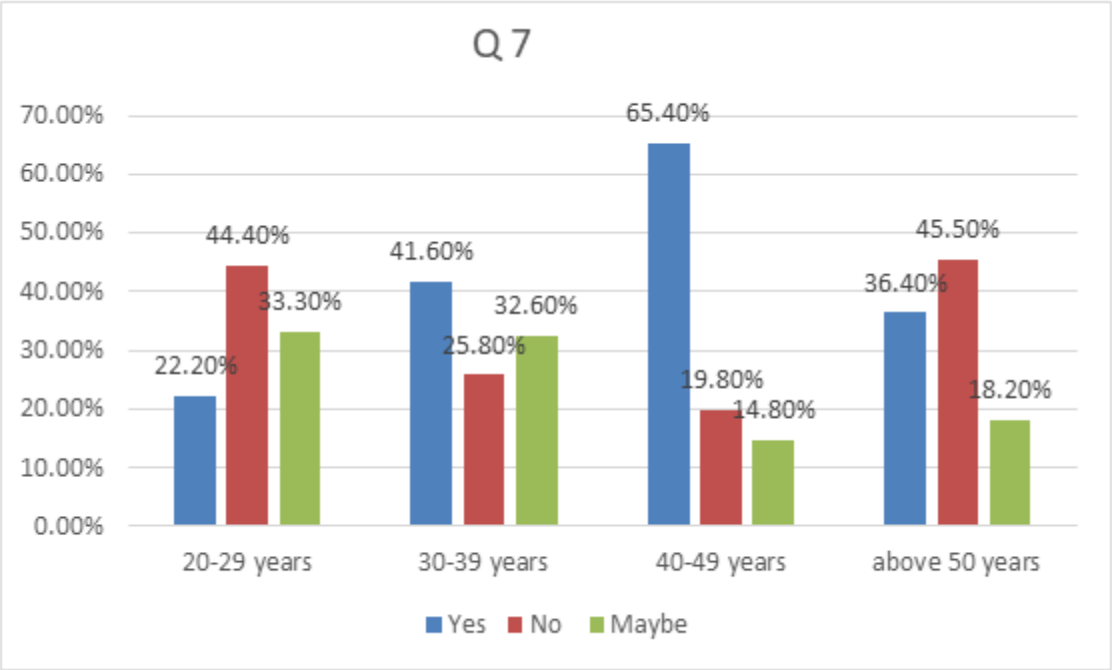

Figure 4: Graph representing age wise preference of telephonic conversation over dentist visit

In response to q8, no statistically significant difference could be found among the responses of different age group respondents (Figure 5,Q8).

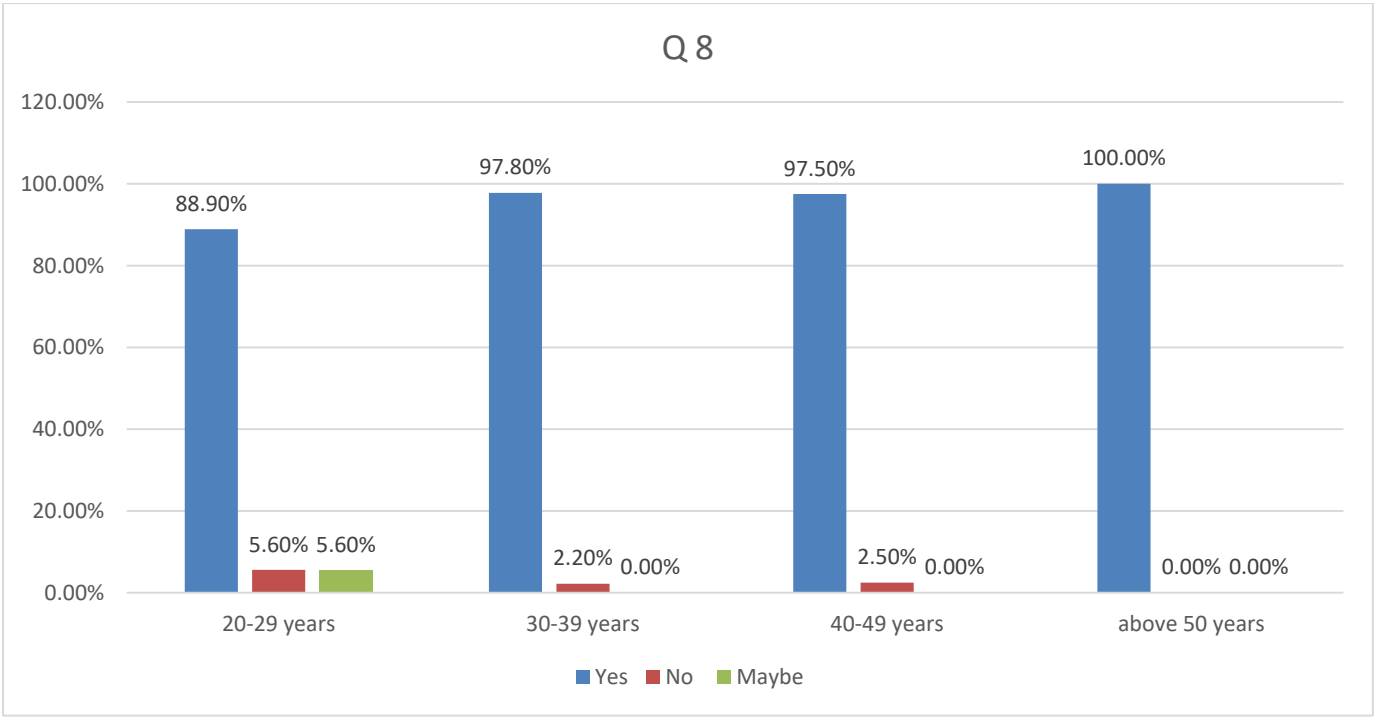

Figure 5: Graph representing whether the measures taken boost up parent's confidence

The practice of self-medication was found to be least prevalent among younger age groups (p=0.031, S) (q9, Figure 6).

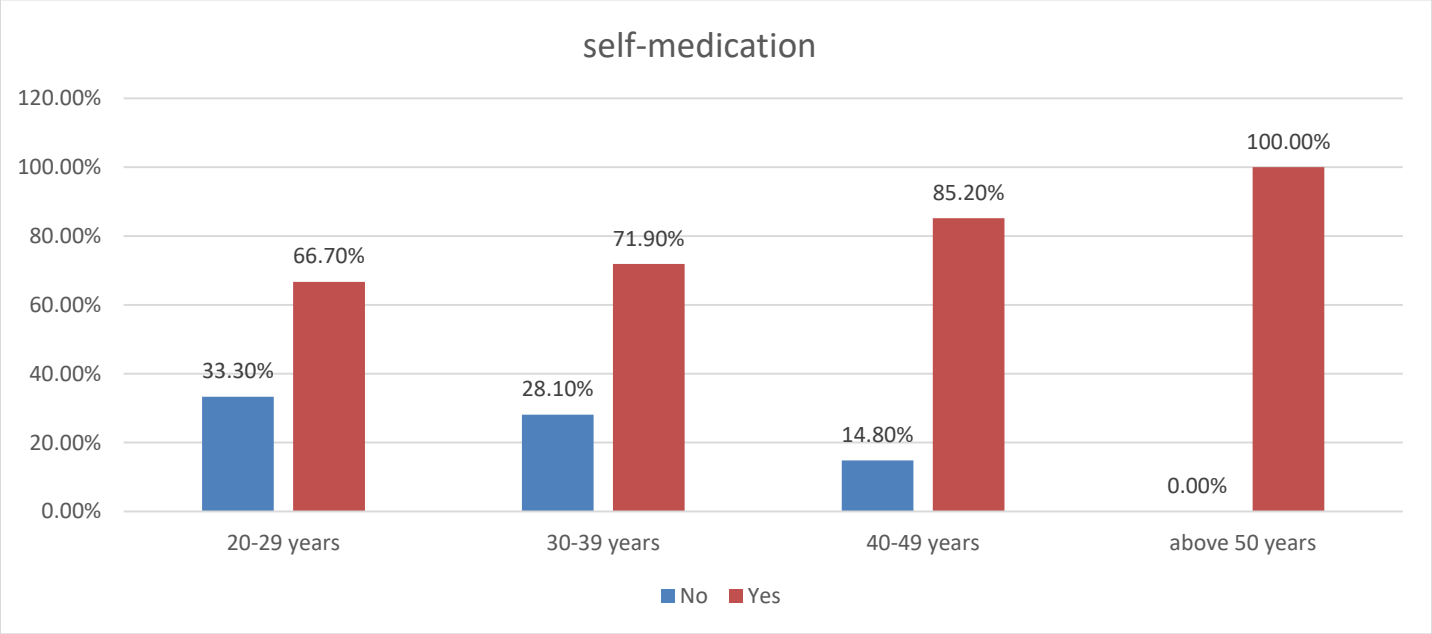

Figure 6: Graph representing whether they self-medicated their child for the tooth related problems during the pandemic

Self-medication was found to be done on local pharmacist advice among above 50 years age group (p=0.003) and from previous prescription among 30-39 years age group (p=0.001)(**Figure 7)(Table 9).**

Q9						
			on local pharmacist advice	on advice from acquaintances	From previous prescription	Internet or advertisements
Age group	20-29 years	N	8	2	3	0
		%	44.4%	11.1%	16.7%	0.0%
	30-39 years	N	36	14	24	2
		%	40.4%	15.7%	27.0%	2.2%
	40-49 years	n	40	7	40	1
		%	49.4%	8.6%	49.4%	1.2%
	Above 50 years	n	11	1	1	0
		%	100.0%	9.1%	9.1%	0.0%
Total		n	95	95	68	3
		%	47.7%	47.7%	34.2%	1.5%
P value			0.003, S	0.546, NS	0.001, S	0.846, NS

Table 9: Tabular representation of source of self-medication

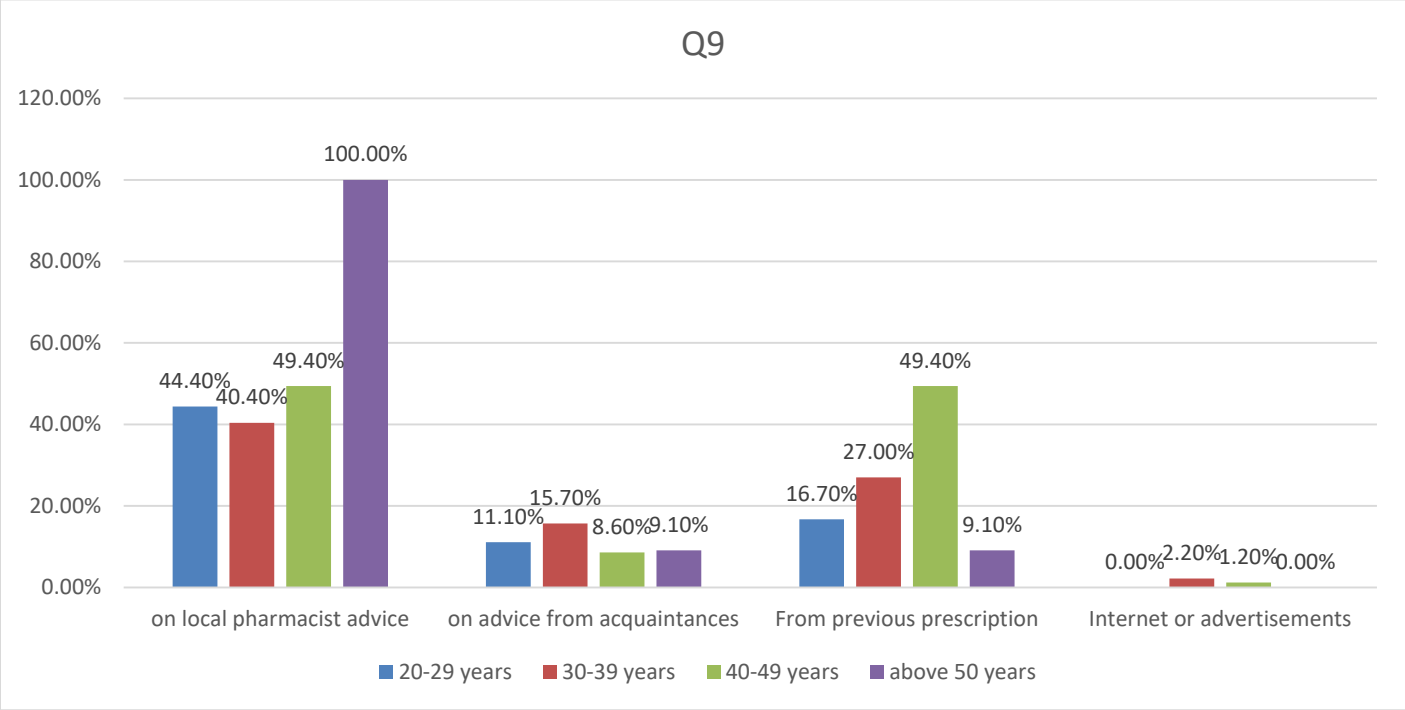

Figure 7: Graph representing source of self-medication

Antibiotics use was found to use as self-medication by younger age group, significantly more (p=0.013,S) when compared with analgesics, vitamins and others**(Figure 8) Q11.**

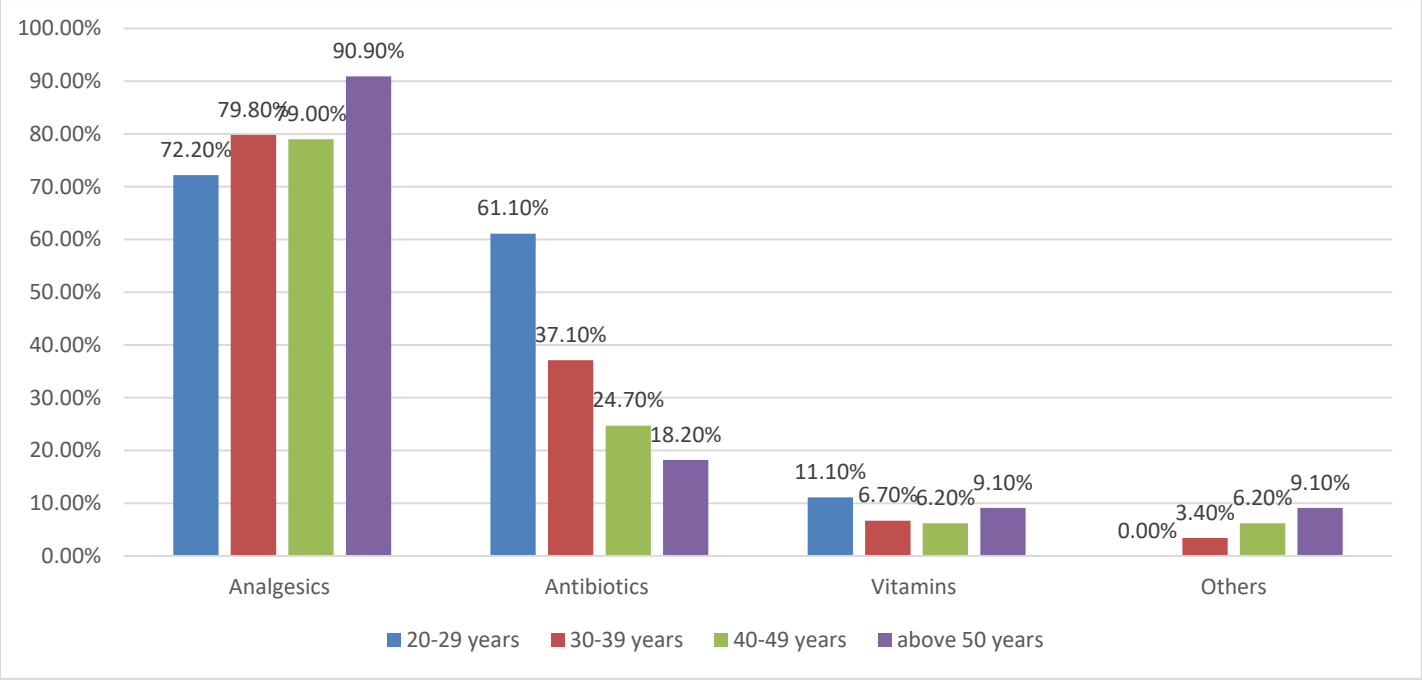

Figure 8: Graph representing the most common medicine that was used as self-medication

Significantly higher proportion of subjects in younger age groups were found to be aware of side effects of self-medication (Q12)(Figure 9). Significantly higher no of subjects in younger age groups, cited GIT effects as side effect (p=0.0.33) (Figure 10, Table 10).

The parents went inquired cited difficulty in obtaining dental consultation and fear of COVID-19 to be the prior reason of self-medicating their children.

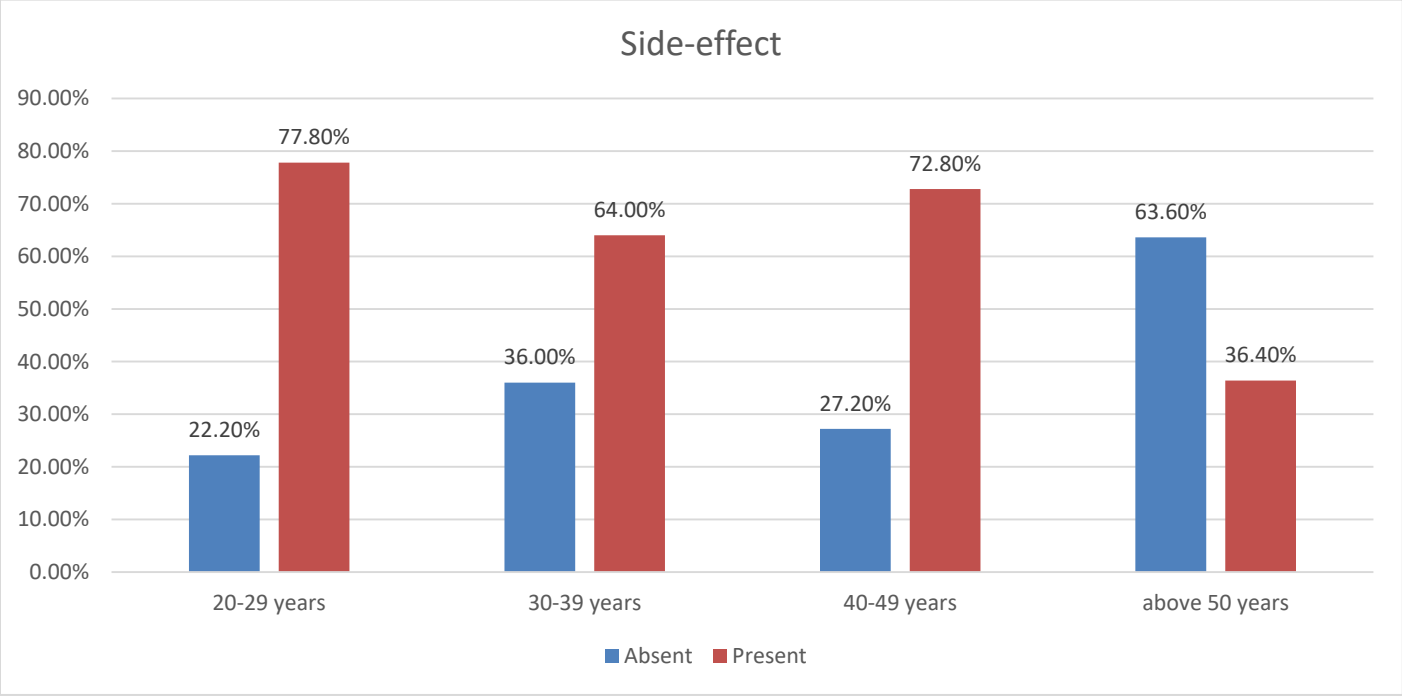

Figure 9: Graph representing age wise distribution of side effect

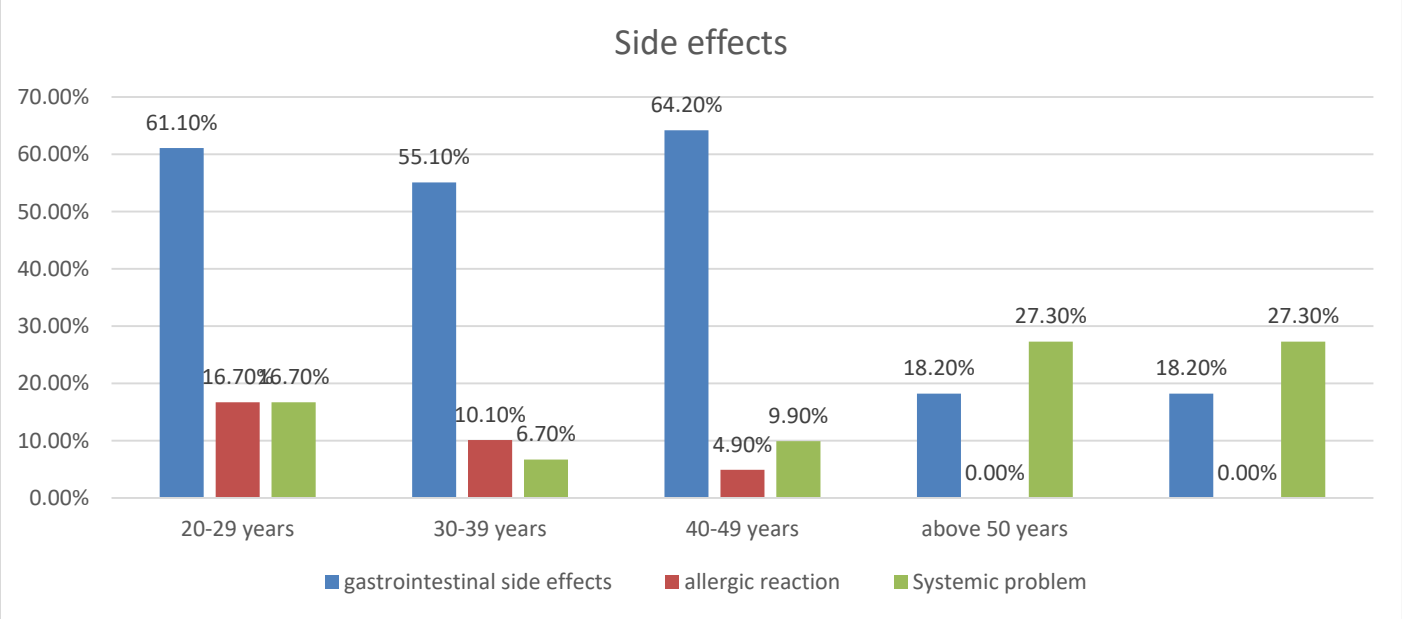

Figure 10: Graph representing the common side effects of self-medication

Side effects					
			Gastrointestinal Side Effects	Allergic Reaction	Systemic Problem
Age group	20-29 years	N	11	3	3
		%	61.1%	16.7%	16.7%
	30-39 years	N	49	9	6

		%	55.1%	10.1%	6.7%
	40-49 years	N	52	4	8
		%	64.2%	4.9%	9.9%
	Above 50 years	N	2	0	3
		%	18.2%	0.0%	27.3%
Total		N	114	16	20
		%	57.3%	8%	10.1%
P value			0.033, S	0.227, NS	0.135, NS

Table 10: Tabular representation of reasons of self-medication

Among younger age groups, significantly more no of participants cited, difficulty in accessibility as the reason for self-medication (p=0.14) (Q13)(Figure 11).

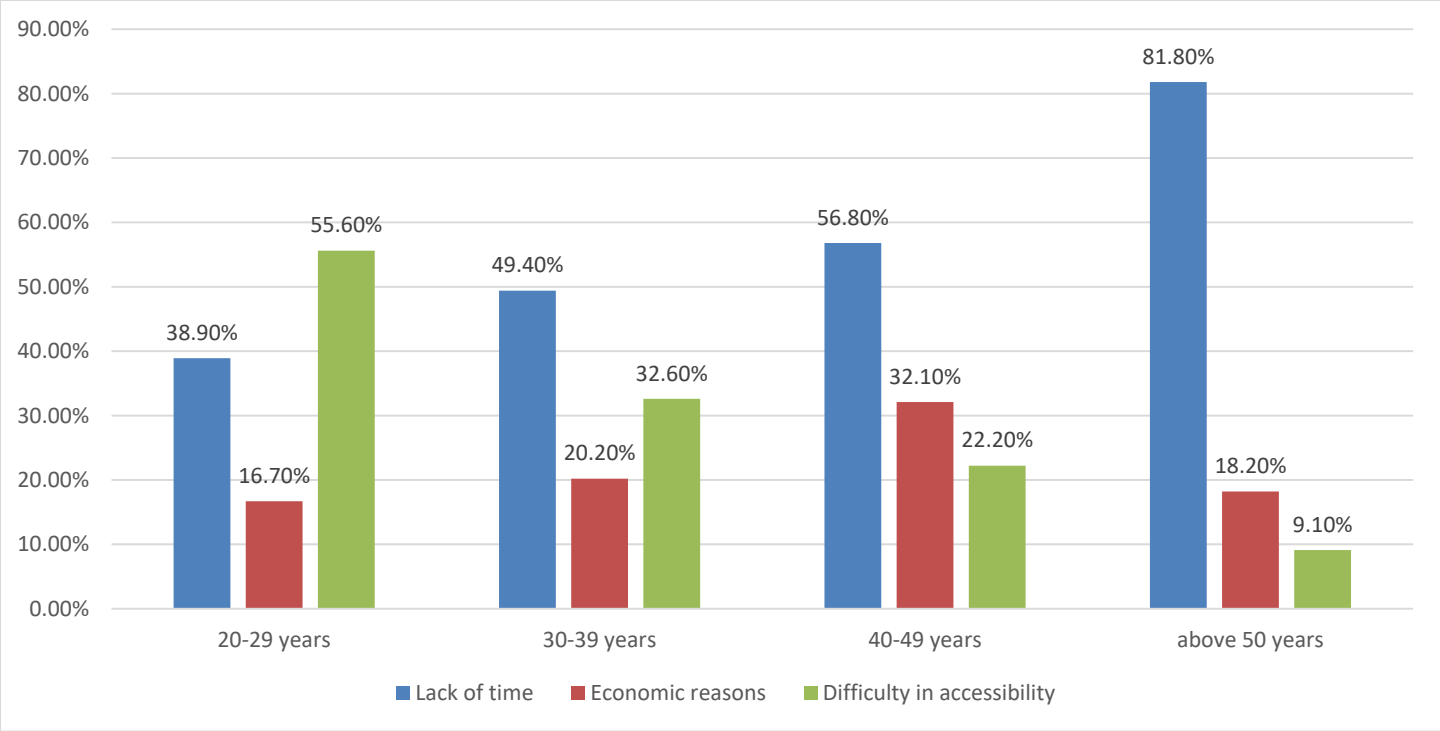

Figure 11: Graph representing reason of self-medication

Among younger age groups, the level of education was significantly high as compared to that among older age groups (p<0.01) (Q14)(Figure 12).

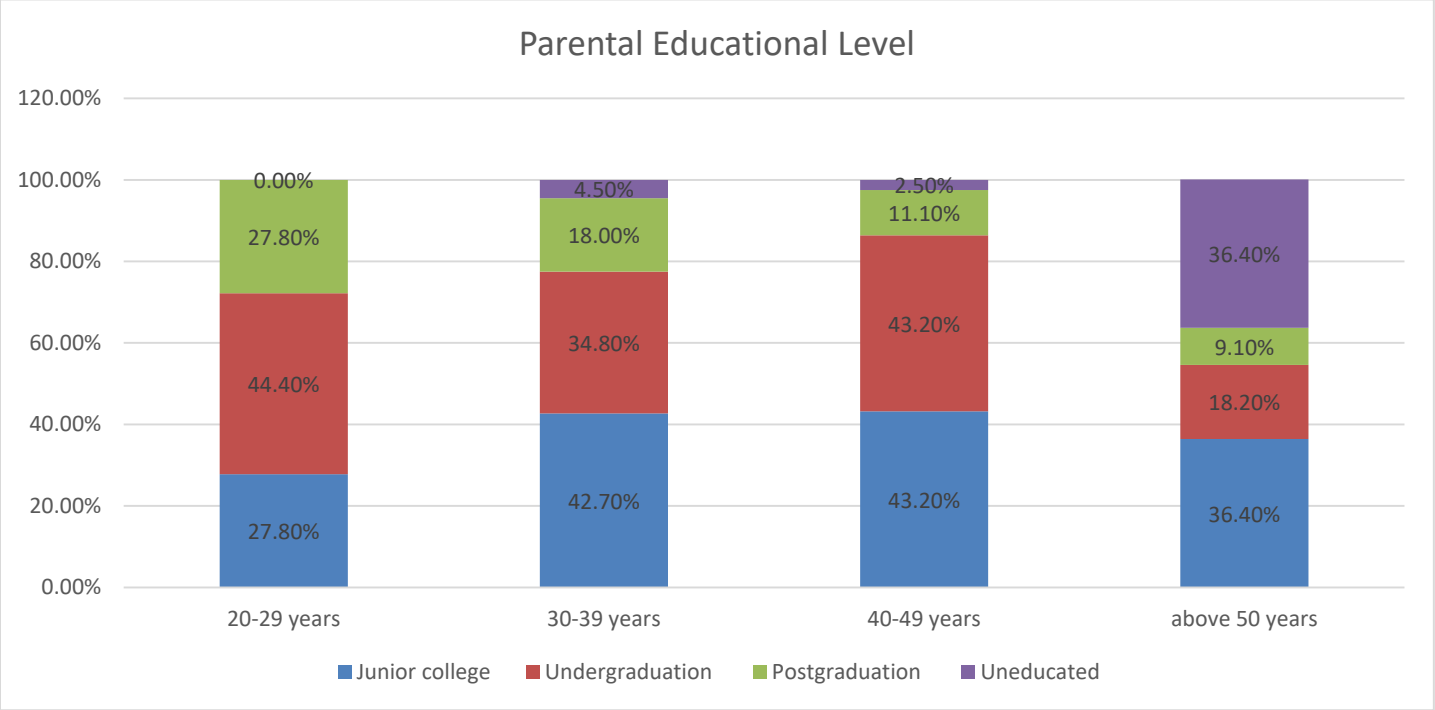

Figure 12: Graph representing age wise distribution of education of parents

Discussion

Lack of education regarding the side effects of medicine, socio economic status of the population, difficulties while assessing the health care needs during the pandemic and patients religious believers and norms were the various factors that influenced the patient for self-medicating themselves or their children .[5] In our study difficulty in accessibility was the main reason of self-medication of children by their parents during COVID 19.The patient mostly purchases medicines based on his previous dental experiences or an advice of some close relatives who had the same issue, or using the same medication already prescribed for the same problem by the dentist previously or buying medicine directly from the pharmacist without any dental consultation leading to abuse of medicines. Self-medication from previous prescription was prevalent among 30-39 years age group and on advice of local pharmacist in elder parent's age 50 or more.

During COVID- 19 pandemic there was a surge in Internet searching trends for self-medicating the patient or their children due to limited accessibility in hospitals and concerns related to contracting the virus in hospitals. Inappropriately self-medicating most commonly leads to adverse drug reactions, drug interactions, expenditures , global emergency of drug resistant pathogens.[6] There is a dearth of studies on self-medicating practices for children with dental problems in the literature and high prevalence of about 70% paid in self-medicating their children when dental problems was seen in northern Turkey .The drug vendor was the most common source of self-prescription drugs which demonstrates the importance of controlling sales of prescription over the counter.

Though earlier lack of time to visit a dentist followed by perception of lack of seriousness of addressing dental problem as a serious health care issue were the main cause of self-medication but during pandemic the main cause was lack of accessibility to visit hospitals. [7]

Girraju showed that self-medication and non-doctor prescription were found to be obvious and alarming in 70.9% of respondents.[8] **Jin Sun et al (2020)** conducted a survey on 148 parents and said 94.59% of the parents had paid high attention to COVID-19 and explained to their children about it and 66.22% thought that the dental department was more dangerous than other public places for virus transmission. In our study 48.5% of respondenrs stated higher risk in dental hospitals. 38.5% stated equal risk as that at public places and 13.1% didn't agree of extra risk in hospital and public environment for contracting the virus.

81.08 percentage of the parents were confident about the fact that the preventive measures taken in the dental department where safe for the children as stated in lierature.[4]

Emine Sen Tunc (2021) conducted a study on 389 parents and 98%of respondents said analgesics where the most commonly used medicines by the parents in self-medication of their children for dental problem contrary to our study where they reported self-medicating their children with antibiotics.[3] A proper statutory drug control policy is needed to be implemented restricting the availability of drugs to public.[9]

Urge of self-care, lack of time, lack of access to health care services, and easy access to drugs, previous prescription of the drug, lack of transportation, lack of finance , ignorance, extensive advertisement, feeling of sympathy towards the family member in sickness and avoiding the complexity associated with the orthodox treatment were the several reasons for self-medication earlier but after pandemic lack of accessibility to hospitals to protect oneself from the exposure to pandemic became one of the prime reasons for self-medication where parents self-medicated their child by using an older prescription or consulting any pharmacist.[10]

The first worldwide reports of self-medication date to 1990s and in 2000 WHO published "Guidelines for the regulatory assessment of medicinal products for use in self-medication"[11]

So self-medication includes when individuals themselves or the caregivers (for minors) decide, without medical evaluation, which medication they will use for symptom relief and treatment. It not only involves sharing drugs with other members of the family and social group, but also using leftovers from previous prescriptions or disrespecting the medical prescription either by prolonging or interrupting the dosage and the administration period prescribed.[12]

A spike in parents self-medicating their children was seen during the COVID 19 pandemic and an introduction to teledentistry came as a respite in these testing times as it made it fast ,simple and reliable way to offer help to patients for consulting the specialist doctors.

Conclusion

World Health Organization (WHO) recommends rational use of drugs which implies that the patients must use the right drugs according to the individual clinical context, in the right doses, on a well-determined period of time and at an affordable price .Prevalence of self-medication in Kashmiri population for dental treatment was very high during the pandemic and Teledentistry came as a boon as assessing patients in their home by the specialists became easier. Self-medication for oral health problems prevalence was seen higher in the population of Kashmir and pharmacists and family played a major influence in self-medicating of the dental problems by their guardians and antibiotics were the most commonly self-medicated drug.

References

1. Nasser Z, Fares Y, Abbas LA. Assessment of knowledge and practice of dentist towards coronavirus disease (COVID-19): A cross sectional survey from Lebanon .BMC oral health 2020 ;28
2. Brata C, Gudka S, Schneider CR, Clifford RM. A review of the provision of appropriate advice by pharmacy staff for self-medication in developing countries. Res Soc Adm Pharm.2015 ;11 (2);136-53
3. Jin Sun , Yan Xu, Qian Qu, Wei Luo. Knowledge of and attitudes towards COVID 19 among parents of child dental patients during the outbreak. Braz Oral Res .2020
4. Emine Sen Tunc, Emre Aksoy, Hatice Nilden Arslan , Zeynep Kaya. Evaluation of parents knowledge ,attitudes and practices regarding self-medication for the children's dental problems during COVID-19 pandemic : a cross sectional survey .BMC Oral Health.2021 ;21 :98
5. Goetz K, Kalder M, Albert us,Jacke CO. The usage of over the counter products by private insured patients in Germany dash acclaims data analysis with focus on complementary medicine .BMC health service Res.2020 ;20 (1):65
6. Simon AK,Rao A, Mithun BH. Trends in self-medication for dental conditions among patients attending oral health outreach programs in coastal Karnataka, India. Indian journal of Pharmacology.2015;47(5):524-52
7. Al Qahtani HA, Ghiasi FS,Zahiri AN,Rahmani NI,Abdullah N, Al Kawas. Self-medication for oral health problems among adults attending the University of Dental Hospital,Sharjah.J Taibah Univ Med Sc 2019;14(4): 370-375
8. Giriraju A.Perception about self-medication practices for oral health problems among general population of Davangere city, Karnataka,India. J Indian Assoc Public Health Dent .2014;12:219-25
9. Kalra DD, Kini PV, Kalra RD, Jathanna VR.Assessmeant of self-medication among dental students in Pune city, Maharashtra : A crosssectional survey. Indian Association of Public health dentistry.2015;13(3):318-2
10. Olawuyi A, Ibrahim L, Uti O.Self-medication for oral health problems among Dental outpatients at Nigerian Tertiary Hospital.Open Journal of Stomatology.2019;9:9-2
11. Tarciuc P, Stanescu AMA, Diaconu CC, Paduraru L, Duduciuc A, Diaconescu S. Patterns and Factors Associated with Self-Medication among the Pediatric Population in Romania. *Medicina (Kaunas)*. 2020;56(6):312.
12. Pereira F, Bucaretchi F, Stephan C, Cordeiro R. Self-medication in children and adolescents. J Pediatr. 2007;83(5):453–8.