



## HABIT DISORDERS; FREQUENCY OF HABIT DISORDERS IN CHILDREN COMING TO OUTPATIENT DEPARTMENT OF ALLIED HOSPITAL FAISALABAD

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**ABSTRACT... Introduction:** Childhood habit behaviors appear in numerous different forms. Many people engage in some degree of habit like behavior in their lifetime. For example, habits can range from seemingly benign behaviors, such as nail biting or foot tapping, to more noticeable physically damaging behaviors, such as teeth grinding (bruxism) and hair pulling. Habit disorders, now subsumed under the diagnostic term stereotypic movement disorder, consist of repetitive, seemingly driven, and nonfunctional motor behaviors that interfere with normal activities or that result in bodily injury. **Objectives:** To determine the frequency of different habit disorders in children coming to outpatient department of Pediatrics unit of Allied Hospital Faisalabad. **Study design:** Cross sectional study. **Setting:** Pediatric department of Allied Hospital Faisalabad. **Duration of study:** 1 year 06 months. (From 01-03-2015 to 01-09-2016). **Results:** We determined that majority of the patients i.e. 40.68%(n=72) were between 49-72 months, mean and sd was 54.23+21.45 months of age, 54.80%(n=97) male and 45.20%(n=80) females, frequency of different habit disorders in children coming to outpatient department of pediatrics unit of Allied Hospital, Faisalabad revealed 19.31%(n=34), nail biting, 22.03%(n=39) had thumb sucking, 41.81%(n=74) had bruxism, 11.86%(n=21) had hair pulling and 10.17%(n=18) subjects had other habits. **Conclusion:** We concluded that the frequency of different habit disorders i.e. nail biting, thumb sucking, bruxism, hair pulling and other is higher among children coming to outpatient department of Pediatrics unit of Allied Hospital Faisalabad and comparable with other studies.

**Key words:** Children, Habit disorders, frequency, thumb sucking, nail biting, hair pulling, bruxism

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### INTRODUCTION

Habit is a behavior that is developed by repetition and is associated with multiple disorders which affect the child's daily activities, result in behavioral disorders which persist for more than 5 weeks.<sup>1</sup> These disorders are thumb sucking, nail biting, bruxism, onychophagia. During development children develop multiple habits in different stages of life.

Biological and environmental factors causes different habit disorders<sup>2</sup>.

Neurological defects, medical illness and developmental disorders are associated with these disorders worldwide prevalence of bruxism is 10%.

Thumb sucking is common more in girls than boys, prevalence decreases with advancing age bruxism causes dental<sup>3</sup>, muscular, tempromandibular joint pain and it shows the anxiety of child irregular nails, paronychia is common complication with nail biting.

Most of the parents take these habits as medical illness and took advices from quacks and gave irrelevant medications which are harmful for children.

My study will help to clarify nature of these habit disorder and management without medicines. Collected data help us to know prevalence of behavioral habit disorder in our setup.<sup>4</sup>

## OBJECTIVES

To determine the frequency of different habit disorders in children coming to outpatient department of Pediatrics unit of Allied Hospital Faisalabad.

## OPERATIONAL DEFINITION

### Habit Disorder

- Nonfunctional, Repetitive behavior present for at least 4 weeks that interfere with child's normal activities or cause physical harm to the child on the basis of history and observation.

### Thumb or Digit Sucking

- It is mouthing of thumb or digits repeated many times a day and present for at least 4 weeks.

### Trichotillomania or Hair Pulling

- Non-cosmetic pulling of hair from any part of the body repeated many times a day present for at least 4 weeks.

### Bruxism or Teeth Grinding

- It is grinding, or clenching of teeth which may occur many times a day present for at least 4 weeks.

### Nail Biting

- Biting or chewing the nails of the hand many times a day present for at least 4 weeks.

## MATERIAL AND METHODS

### Study design:

Cross sectional study

### Settings

Pediatric department of Allied Hospital Faisalabad that is a tertiary care centre.

### Duration

01-03-2015 to 01-09-2016

### Sample Size

By using WHO sample size calculator sample size calculated as

Prevalence of hair pulling = 8 %<sup>6</sup>

Confidence Level	= 95 %
Absolute precision required	= 4 %
Sample Size	= 177

### Technique

Non probability consecutive sampling technique was used.

### Inclusion Criteria

- Age from > 1 year to < 12 years.
- Typically developed children of both sexes with some habit disorder

### Exclusion Criteria

All patients having some mental or psychiatric illness (like Autism, Attention deficit hyperactivity disorder, Mental Retardation, Cerebral Palsy, Epilepsy) were excluded on the basis of history and observation.

## DATA COLLECTION PROCEDURE

After getting permission from hospital ethical review committee, all children coming in Pediatrics Unit of Allied Hospital, Faisalabad between ages from > 1 year to < 12 years of both sexes with some habit disorder were selected after explaining the purpose, procedure, risk benefits ratio, addressing ethical issues and taking informed consent from parents or guardians. Exclusion criteria was strictly followed. On the basis of history and observation, by asking about thumb sucking, nail biting, teeth grinding, hair pulling and other habit disorders, all the information was collected on a specially designed Performa by myself.

## DATA ANALYSIS

At the end of the study the results were entered and analyzed with the help of SPSS version 10. Descriptive statistics were calculated for all variables. Mean and standard deviation was calculated for all numeric variables like age (in months), age of onset of habit (in months) and duration of habit (in months). Frequency and percentages were calculated for categorical variables like gender, nail biting, thumb sucking, bruxism and hair pulling and others. Stratification was undertaken on age, gender, economic status and education so study their impact on outcome.

## RESULTS

A total of 177 patients fulfilling the inclusion/exclusion criteria were enrolled in the study to determine the frequency of different habit disorders in children coming to outpatient department of Pediatrics unit of Allied Hospital Faisalabad.

Age distribution of the patients shows 17.51%(n=31) subjects between 13-24 months, 29.94%(n=53) were between 25-48 months, 40.68%(n=72) were between 49-72 months, 6.22%(n=11) between 73-96 months, 3.69%(n=7) between 97-120 months and only 1.69%(n=3) were between 121-144 months of age, mean and sd was calculated as 54.23+21.45 months of age. (Table No. I)

Gender distribution of the subjects show 54.80% (n=97) male and 45.20% (n=80) females. (Table No. II)

Frequency of different habit disorders in children coming to outpatient department of pediatrics unit of Allied Hospital, Faisalabad revealed as 19.31%(n=34), nail biting, 22.03%(n=39) had thumb sucking, 41.81%(n=74) had bruxism, 11.86%(n=21) had hair pulling and 10.17%(n=18) subjects had other habits. (Table No. III)

Duration of habit disorders (in months) was recorded as 33.90% (n=60) between 1-6 months, 31.07% (n=55) between 7-12 months, 29.94% (n=53) between 13-24 months and 5.09% (n=9) had >24 months of duration of disorders. (Table No. IV)

Stratification for age, gender and duration of different habit disorders in children coming to outpatient department of pediatrics unit of allied hospital Faisalabad is done in the following table No. 5, 6 and 7 respectively.

## DISCUSSION

Throughout life people develop various habits most of these are benign like nail biting, thumb sucking- few are lethal habits causing damage to childlike teeth grinding and hair pulling.<sup>5</sup>

Age (in months)	No. of patients	%
13-24	31	17.51
25-48	53	29.94
49-72	72	40.68
73-96	11	6.22
97-120	7	3.96
121-144	3	1.69
<b>Total</b>	<b>177</b>	<b>100</b>
<b>Mean and SD</b>	<b>54.23+21.45</b>	

Table-I. Age distribution of the subjects (n=177)

Gender	No. of patients	%
Male	97	54.80
Female	80	45.20
<b>Total</b>	<b>177</b>	<b>100</b>

Table-II. Gender distribution of the subjects (n=177)

Habit disorders	No. of patients	%
Nail biting	34	19.21
Thumb sucking	39	22.03
Bruxism	74	41.81
Hair pulling	21	11.86
Others	18	10.17

Table-III. Frequency of different habit disorders in children coming to outpatient department of pediatrics unit of allied hospital Faisalabad (n=177)

Duration (months)	No. of patients	%
1-6	60	33.90
7-12	55	31.07
13-24	53	29.94
>24	9	5.09
<b>Total</b>	<b>177</b>	<b>100</b>

Table-IV. Duration of habits disorder (n=177)

Teeth grinding has relationship with daytime anxiety usually occur in first four years of life.

Thump sucking is a reflex that can be seen in utero.<sup>6</sup> These habit disorders have differential of mental retardation<sup>7</sup>, pervasive disorders obsessive- compulsive disorders most of these habits are part of normal development and do not fulfill criteria of disorder. We conduct this study because in Pakistan almost no data available in this aspect of habit disorders the results also help us in formatting management<sup>8</sup> strategies with minimal harm to child and prevalence of these disorders in our setup.<sup>9</sup>

Age (in months)	No. of patients	HABIT DISORDERS				
		Nail biting (n=34) %	Thumb sucking (n=39) %	Bruxism (n=74) %	Hair pulling (n=21) %	Others (n=18) %
13-24	31	2(5.88%)	13(33.33%)	11(14.86%)	4(19.04%)	1(5.56%)
25-48	53	7(20.59%)	15(38.14%)	29(14.86%)	7(33.33%)	8(44.44%)
49-72	72	16(47.09%)	11(28.21%)	32(82.05%)	6(128.57%)	5(27.78%)
73-96	11	8(23.53%)		2(5.13%)	3(14.29%)	3(16.67%)
97-120	7	1(2.94%)			1(4.76%)	1(5.56%)
121-144	3	--				

**Table-V. Stratification for age of different habit disorders in children coming to outpatient department of pediatrics unit of allied hospital Faisalabad (n=177)**

Gender	No. of patients	HABIT DISORDERS				
		Nail biting (n=34) %	Thumb sucking (n=39) %	Bruxism (n=74) %	Hair pulling (n=21) %	Others (n=18) %
Male	97	18	15	42	10	12
Female	80	16	24	32	11	6

**Table-VI. Stratification for gender of different habit disorders in children coming to outpatient department of pediatrics unit of allied hospital Faisalabad (n=177)**

Duration(months)	No. of patients	HABIT DISORDERS				
		Nail biting (n=34) %	Thumb sucking (n=39) %	Bruxism (n=74) %	Hair pulling (n=21) %	Others (n=18) %
1-6	60	4	19	25	8	4
7-12	55	5	16	19	11	5
13-24	53	21	3	22	2	7
>24	9	4	1	3		3

**Table-VII. Stratification for duration of different habit disorders in children coming to outpatient department of pediatrics unit of allied hospital Faisalabad (n=177)**

These findings are same with study who done in Israel estimate thumb sucking or digit sucking in about 19%. Bruxism in up to 40% of children<sup>10</sup>, Nail biting in 16%<sup>11</sup> and hair pulling in 7% of children. Results of this study shows that permanent physical developmentally normal children's.<sup>12</sup>

Treatment not required in these habits do not disturb child daily activities interventions are required if these habits interface physical growth and social interactions.<sup>13</sup>

Child psychologist and psychiatrist consultation required when physical damage observed as physical examination.<sup>14</sup>

Oral destructive habits need dental splints. Helmets needed for trichomania.<sup>15</sup>

Pharmacological therapies are under trial for

these stereotypes.<sup>16</sup> But most of these habit disorders do not need such interventions.<sup>17</sup>

## CONCLUSION

We concluded that the frequency of different habit disorders i.e. nail biting, thumb sucking, bruxism, hair pulling and other is higher among children coming to outpatient department of Pediatrics unit of Allied Hospital Faisalabad and comparable with other studies.

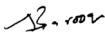



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1	Dr. Anjum Farooq	Study design, data collection & paper writing, main author.	
2	Dr. Sadida Bahawal	Paper writing & concept, analysis & Proof reading.	
3	Dr. Imran Sarwar	Proof reading, statistical analysis, complication.	
4	Dr. Aamir Mushtaq	Data collection	
5	Prof. Dr. M. Asghar Butt	Supervisor	