



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3777540>Available online at: <http://www.iajps.com>

Research Article

**PRESENCE OF ONYCHOPHAGIA IN MALES AND  
FEMALES AND ITS AFFECT ON HEALTH**<sup>1</sup>Dr. Shahina Sadaf, <sup>2</sup>Dr. Qurat Ul Ain Javed, <sup>3</sup>Dr. Asma Manzoor<sup>1</sup>THQ Hospital Darya Khan, Bhakkar<sup>2</sup>THQ Hospital Kamalia, Toba Tak Singh<sup>3</sup>THQ Hospital Darya Khan, Bhakkar**Article Received:** February 2020**Accepted:** March 2020**Published:** April 2020**Abstract:**

*Onychophagia is defined as chronic nail biting behavior that affects about 20-30% of the general population. However, biting nails seems to be an overlooked problem in everyday clinical practice. We analyzed the impact of Onychophagia on quality of life (QoL) and stigma level in 339 medical students without biting nails. People with Onychophagia showed significantly more quality of life disorders than controls ( $p < 0.001$ ). In the past, people who could not stop the biting behavior of their nails ( $p < 0.01$ ), had visible nail abnormalities ( $p = 0.03$ ), spent more time biting their nails ( $p = 0.02$ ) and more nails turned on ( $p = 0.03$ ), higher life showed quality. In addition, independent variables affecting nail bites ( $or = 12.5$ ;  $p < 0.001$ ), suffering from nail bites ( $\beta = 12.6$ ;  $p = 0.001$ ) and eating behavior ( $\beta = -7.5$ ;  $p < 0.01$ ). Participants with Onychophagia also showed higher stigma ( $0.6 \pm 1.2$  and  $0.2 \pm 0.6$  point,  $p < 0.01$ ), but the level of stigmatization was low in both groups.*

**Keywords:** nail biting; HRQoL; stigma**Corresponding author:****Dr. Shahina Sadaf,**

THQ Hospital Darya Khan, Bhakkar

QR code



Please cite this article in press Shahina Sadaf et al, **Presence Of Onychophagia In Males And Females And Its Affect On Health.**, Indo Am. J. P. Sci, 2020; 07(04).

**INTRODUCTION:**

Onchophagia is a constant nail biting among children. It can be described as the intake of hand in the mouth to bite the nails. Soft cells present in the surrounding region of nails are entered in the mouth in this way. Some problems like trichotilomania are included in (DSM-IV) edition which are behavioural. Nail biting is not measured as (DVM-IV) but others consider that nail biting is a compulsive habitual disorder gamut<sup>1</sup>. Nail biting lead to certain psychosomatic disorders that have negative effect on excellence of life. This verbal habit may lead to a variety of cerebral and dental troubles. With nail biting dent facial deformities are linked and should be correctly administrated<sup>2</sup>. In children malocclusion of interior teeth are common and resumption of apical root could occur. Incisal edges of incisors of nail biting patient revolution and abrasion were observed during the examination<sup>3</sup>. Due to nail biting alveolar obliteration in incisor of patient is cause. Stomach troubles occurs along with the infection of mouth, felon when the children gulp the nails<sup>4</sup>. Oral habits like nail biting and thumb sucking are injurious habits that act as an adaptive perform in obtaining subduing disturbed and joy<sup>5</sup>. These habits may additionally act as carriers of countless microorganisms into the oral cavity, of which, Enterobacteriaceae members are temporary pathogens, which could influence in unhealthy systemic conditions.

Nail biting is a easy performance to some scale but effort to cure this behavior had failed. As far as its judgment is troubled there are a lot of argument about main reasons behind this behavior<sup>6</sup>. Some studies reveal that nail biting is an behavioral trouble and some link it to be anxious, but current studies establish it incorrect. Nail biter most likely bite their nails during pressure, during be apologetic instant, watching television, talking on phone, interpretation sad stories, during thoughts or when they don't know the session. This behavior could also be learnt from family like parents and siblings<sup>7</sup>. Extreme nail biting (onchophagia) and finger self-mutilation are most of the time connected to psychiatric matters connotative of schizophrenia, obsessive-compulsive persona traits, anxiousness, autism, and intellectual retardation. Even though obstructive sleep apnea (OSA) has been linked to cognitive deficits, hyperactivity/inattention, daylight hour's sleepiness and attitude disturbances, its efficiency role in the pathogenesis of impulse-manage behavior confusions like Onychophagia is currently unidentified. Its etiology may include aloneness, heredity immobility conversion from a thumb sucking habit<sup>8</sup>. It could be underlying poignant disorder someway. Some unusual diseases caused by nail biting include melanonychia, splinter

hemorrhages and leukonychia. Usually patients don't account nail biting as they thought it is a normal behavior and they refuse that they bite their nail.

**REVIEW OF LITERATURE**

The charges of NB in seven to 1 year-ancient children and throughout juvenile are suggested being 22–35% and forty-five%. In a benefit knowledge of on a community pattern of foundation aged youngsters in Iran it was indicated that the ccharge of NB in boys and girls have been 2.1% (ninety-five% CI: 15.8 to 24.1) and 23.7 % (ninety-five% CI: 20.1 to twenty-eight. Nail biting was not regarding gender, habits problems, inattentiveness, overactivity, and associated issues. Moreover, the cost of NB in as a minimum one of the most ordinary contributors of youngsters with NB used to be 35.9% (95% CI: 22.1 to forty-four. Different gain knowledge of on American three to six-year-ancient preschool kids demonstrated that the price of NB was 23%. Nail biting is age-related, and its prevalence decreases with the spread of age. The cost of NB in school youngsters in Mangalore, India, used to be 12.5%, and it was once extra popular in women than boys.

The rates of NB in less than 10 years ancient twins were 26% in boys and 24% in girls. It co-came about with finger sucking in 16.7% of boys and 14.7% of women. About 22.5% of male adults are nail biters. Gain knowledge of on 5574 kids (5-13 years historical) in Delhi indicated that the occurrence of oral habits remixnodule of thumb sucking and lip biting were 27.5% and three%. While oral dependency was no longer correlated with gender, thumb sucking was extra long-established in women than in boys. About 25.1% of nail biter have temporomandibular joint defective. Therefore, it's supported to examinee about oral habits identical to NB in all temporomandibular joint ache and dysfunction. Moreover, sufferers with temporomandibular joint soreness and defective must be consulted as a part of their government. There is limited experiences about co-morbidity of NB with psychiatric problems. Three most artificial co-happening psychiatric disorders in clinical pattern kids with NB are attention deficit hyperactivity ailment (seventy four.6%), oppositional challenging disease (36%), and separation anxiety disorder (20.6%). Other co-morbid disorders integrated enuresis (16.6%), tic ailment (14.7%) and obsessive compulsive ailment (13.1%), major depressive ailment (7.7%), mental slowdown (8.5%), and pervasive developmental disease (3.2%).

Co-morbidity with psychiatric ailment is not associated with offensive bodily injury, currently or onset age of NB. All the boys and 81% of the women of the scientific order of youngsters with

NB experience from as a lightest one psychiatric ailment. Nail biting is also one of the common (28.6%) psychiatric problems in youngsters and adolescents with Tourette syndrome. Some stereotypic behavior issues are very traditionally in children with NB, and their investment is up to sixty-eight %. The gain knowledge didn't aid that NB used to be correlated with nervousness disorders. Apparently the most original co-happening stereotypic behaviors were lip biting (33.3%) and head banging (12.7%). An extra be accomplished said that 79% of individuals with hair-pulling habit had different stereotypic behaviors, of which dermis-determining and nail-biting had been essentially the most long-established ones. Donors with NB have better disturbed determinee behaviors. Fifty six out of 519 individuals with obsessive compulsive disease had NB.

There are a number of examine regarding the organization of psychiatric problems within the parents and NB in their youngsters. The only study that investigated the mom and dad of kids with NB indicated that about 57.5% of moms and forty seven.7% of fathers suffered from a psychiatric disorder, which most by and large used to be foremost depressive disorder.

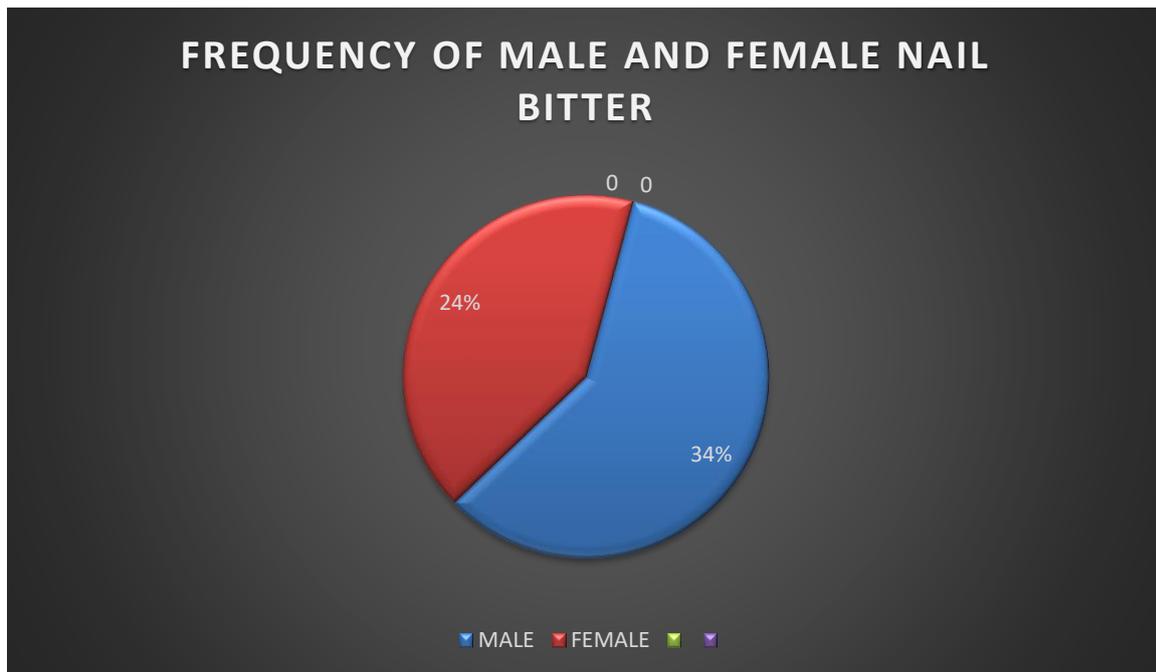
#### MATERIALS AND METHODS:

#### STUDY AREA:

Pir Mehr Ali Shah Arid Agricultural University located in Rawalpindi, a city of Pakistan is the study area to make this report. Number of students in arid university is 14700+ total. As a sample 100 students have been taken from different departments of our university. Half will be randomly taken and other half will be closely related to NB in which both males and females are present. To make this report, we will collect samples from different departments of our university. Two groups control group and experimental group would be taken on this basis. Statistical analysis would be used to interpret the results. Tables and pie chart would be used to interpret the results.

#### RESULTS:

In order to obtain results and findings about prevalence of onchophagia and its association with mental health questionnaires were conducted from students of university. Age, gender, name and concern department was used as a information in questionnaires. About 100 sample were collected and 50% were male and 50% were females. Males and females were selected randomly as a sample in which half sample were of control group and half of experimental group.



According to sample collected, 34% males were nail biter and 24% were female, male frequency is more than female as result conducted. Out of 100 sample population, 21% are of 23 age and age ranges from 17 to 28.50% were habitual nail biter and out of 50 males 34% were habitual nail biter and 10% female were habitual in 100 samples. According to observation in given table below, out of 100 sample 35% bite their nail 2 to 4 times, 15% bite 7 to 12 times and 2% bite more than 14 times and 48% never bite their nails.

**Table 1**

Time	Frequency
2 TO 4 TIMES	35%
7 TO 12 TIMES	15%
MORE THAN 14 TIMES	2%
NEVER	48%

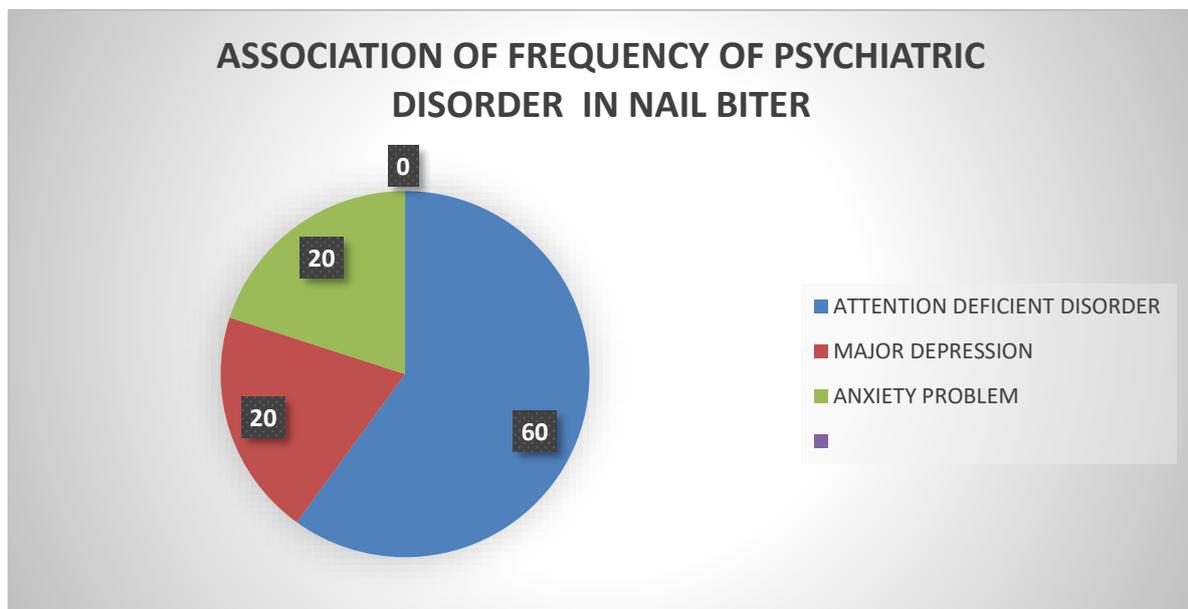
As more observations and results are concerned in table given below, out of 50 sample population 40% have at least nail biter in family including 12% are female and remaining are male.

**Table 2**

Observation	Frequency 50	%
Male	14	38%
Female	6	12%

The frequency of nail biting in family members

According to observation, out of 50 nail biters, 35 are deficient of attention, 15 have major depression problem and 7 have disorder of anxiety



### DISCUSSION:

The sample who have nail biting behavior they have more emotional and behavioral problems according to given results and most astonishing fact is that more than half of persons have nail biting habit out of sample collection his behavior is observed more in males as compared to the females. Nail biting had a family pattern as indicated by Ahmad ghanizadeh 2016 as indicated through the result<sup>9</sup>. Link between emotional and behavioral problems of nail-biting patients were not much. But somehow, higher emotional balance have been seen in nail biter than others people<sup>10</sup>. Nail biting behavior was age dependent not gender was another striking finding.

Nail biting release anxiety, loneliness and depression have been indicated through previous

studies but there is not much link between associations of stress with nail biting according to our study<sup>11-12</sup>. Higher emotional problems do not mean that it is equal to anxiety<sup>13</sup>. Somewhat nail biting is linked to psychiatric diseases as another finding indicates<sup>14</sup>. Parents more than two third of samples are also suffering from psychiatric diseases. Somehow, nervousness is also consequence of nail biting as result indicates. In nail biting patients nail biting could be secondary reason of anxiety in such as ADHD. Environmental factors like imitation of parents and siblings could be induce nail biting behaviour as indicated through results. Physical damage, mental problems to patients, motivational problem could be caused through nail biting and it easily could be treated<sup>15</sup>. Patients could not control their habit they are well aware of this habit also. Whether nail biting is

consequence of psychiatric disorders but findings could not be determined through this way.

It is difficult to treat the Onychophagia and result are not admiring toward that. Nail biting treatment with drugs are not affective as more result indicated and habit opposite technique does not support long term cure. Due to deficiency of knowledge regarding nail biting behavior related to psychiatric diseases treatment was not properly understandable. If you wanted to treat Onychophagia, you should deal with psychiatric diseases in parents and patients according to my suggestion. This would be rather more effective technique than treating with drugs. Psychiatric should rather check nail biting behavior in patients with mental diseases according to the findings of my studies.

### CONCLUSION:

As far as conclusion is concerned, nail biting is age related rather than the gender related. Rather than scolding, punishment etc care and attentions should be used to handle them. Social interaction and psychiatric diseases is mostly related to nail biting. Nail biting also known as Onychophagia, is a chronic disease in which patient bite their nails, nail epidermis and soft tissues in field of dermatology and psychiatry nail could not achieve space. In age of 4 to 5 years mostly cases are reported but its frequency increase with age and a large number of children are affected. This behavior decrease after adulthood and its prevalence is more in boys than girls. Nail biting is not considered pathological at all but other considered it in obsessive compulsive disorder. Nail biting had negative effects on quality of life and this behavior leads toward mental and behavioral diseases. It causes damage to teeth, nails and rotation of incisors are observed as its symptoms are concerned due to swallowing action of nails stomach problems could occur. Nail biting is difficult to cure but it is a simple behaviour. Its etiology include, stress, during anguish moments, watching television, talking on telephone, reading sad stories. Imitation of nail biting from family members and presence of psychiatric diseases in family is common among patients. Extreme behavior of nail biting is concerned with schizophrenia, autism, and OSA. Leukonychia and melanonychia could be some unknown causes of Nail biting. Half of the patients with depression had nail biter child and major problem arise due to lack of attention from the family members. Nail biting is often replaced by hair pulling, chewing of pencil, hair twisting in the adulthood. Cure of nail biting is not easy as it seems, patients should be motivated toward removing of this behavior and treatment should be given. Patients should be aware of disease and punishment is not affective way of treating nail biting. Patients should itself tried to

quit it and also by paying proper attention toward children nail biting could be overcome.

### REFERENCES:

1. Pastro, João Dalto Viganó, Adriana Cândida Albuquerque Nogueira, Karina Maria Salvatore de Freitas, Fabricio Pinelli Valarelli, Rodrigo Hermont Cançado, Renata Cristina Gobbi de Oliveira, and Ricardo Cesar Gobbi de Oliveira. "Factors Associated to Apical Root Resorption after Orthodontic Treatment." *The open dentistry journal* 12 (2018): 331.
2. Dev, Shankhanil, Ananya Pal, Shabnam Zahir, and Gautam Kumar Kundu. "A fixed intraoral nail biting habit-breaker appliance: A case report of a novel approach to prevent ONYCHOPHAGIA." *Journal of Dental Research, Dental Clinics, Dental Prospects* 13, no. 3 (2019): 172.
3. Winebrake, James P., Kartikey Grover, Pierre Halteh, and Shari R. Lipner. "Pediatric ONYCHOPHAGIA: A Survey-Based Study of Prevalence, Etiologies, and Co-Morbidities." *American journal of clinical dermatology* 19, no. 6 (2018): 887-891.
4. Sabbar, Ban Anas, Assim Khalid Assim, and Nadham Kadham Mahdi. "Seroprevalence of Toxocara spp Among Epileptic Patients in Iraq/Basra." *Age* 7, no. 16: 15.
5. Carvalho, Lucas Senra Corrêa, Osvaldo José Moreira Nascimento, Luciane Lacerda Franco Rocha Rodrigues, and Andre Palma Da Cunha Matta. "Relationship between Expanded Disability Status Scale scores and the presence of temporomandibular disorders in patients with multiple sclerosis." *European journal of dentistry* 12, no. 01 (2018): 144-148.
6. Gras-Ozimek, J. O. R. D. I., Wojciech Ozimek, U. R. S. Z. U. L. A. Kozińska, M. O. N. T. S. E. R. R. A. T. Gras-Graupera, E. Kozińska, and A. N. T. O. N. I. N. A. Bar. "Ascariasis and its relationship with selected psychoneurological symptoms among children and adults in Poland." *Pol Merkur Lekarski* 46, no. 274 (2019): 165.
7. Santos, Mylena Helen Silva, Manuel de Oliveira Dantas Filho, Maria da Conceição de Barros Correia, Cláudia Wanderley de Barros Correia, Valter Romão de Souza Júnior, Yuri Victor de Medeiros Martins, Alexandre Policarpo da Silva et al. "Deleterious Oral Habits in Preschool Children with Sensory Processing Disorder: An Association Study."
8. Cociancic, Paola, Maria Lorena Zonta, and Graciela Teresa Navone. "A cross-sectional study of intestinal parasitoses in dogs and children of the periurban area of La Plata (Buenos Aires, Argentina): Zoonotic importance and implications in public

- health." *Zoonoses and public health* 65, no. 1 (2018): e44-e53.
9. Murrieta, José Francisco, Yannette Concesa Velázquez Jiménez, María Fernanda Yáñez Acosta, María del Pilar Adriano Anaya, and Tomás Caudillo Joya. "Parafunctional oral habits and primary dentition characteristics in a group of preschool children from Tlaquepaque, Jalisco, Mexico." *Journal of Oral Research* 8, no. 1 (2019): 50-58.
  10. Alahmary, Ahmed Wallan. "Association of Temporomandibular Disorder Symptoms with Anxiety and Depression in Saudi Dental Students." *Open Access Macedonian Journal of Medical Sciences* 7, no. 23 (2019): 4116.
  11. Solley, Katelyn, and Cynthia Turner. "Prevalence and correlates of clinically significant body-focused repetitive behaviors in a non-clinical sample." *Comprehensive psychiatry* 86 (2018): 9-18.
  12. Scarimbolo, Katrina. "Reactions to behaviors: the role of education on people's perceptions of body-focused repetitive behaviors." PhD diss., 2018.
  13. Prasad, A. S. V. "A Genetically Transmitted, Benign Habit: A Case Report and Review." *Asian Journal of Case Reports in Medicine and Health* (2019): 1-9.
  14. Sarit, Swapna, Gururaghavendran Rajesh, BH Mithun Pai, and Ramya Shenoy. "Factors influencing the impact of temporomandibular disorders on oral health-related quality of life among school children aged 12–15 years in Mangalore: An observational study." *Journal of Indian Association of Public Health Dentistry* 17, no. 1 (2019): 58.
  15. Arif, Tasleem, Iffat Hassan, Konchok Dorjay, Mushtaq Ahmad Margoob, Parvaiz Anwar, and Sheikh Shoib. "Nail changes in patients admitted in a psychiatric hospital: A cross sectional study." *Journal of Pakistan Association of Dermatology* 28, no. 1 (2018): 89-94.