Journal Homepage: -www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/15854
DOI URL: http://dx.doi.org/10.21474/IJAR01/15854

RESEARCH ARTICLE

ONYCHOPHAGIA (NAIL-BITING) SIGNS OF PSYCHOLOGICAL DISORDERS OR SIMPLE HABIT

Dr. Suhail Abdalhameed Abdalrasheed Khan[1], Dr. Hoda Jehad Abousada[2], Dr. Mohammed Musharraf Alamri[3], Dr. Muaath Ahmed Al Ghamdi[3], Dr. Ghaidaa Abdulkareem Alfaraj[3], Dr. Rakan Abdullah Alosaimi[3], Dr. Abdullah Salem Alghamdi[4], Dr. Salihah Ahmed Bajaber[5], Dr. Khulud ali Bakri[5], Hanadi hamoud alharbi[6], Lamia Naiaf Alotaibi[6], Suad saad Almutairi[6], Mathal abdulrahman Alanazi[6], Jamilh saad Al Rashidi[6] and Tahani Yousef Alatawi[6]

1. Consultant Psychiatrist, Psychiatry Department, Mental Health Hospital, Jeddah, KSA.
2. Obestetric&Gynecology MRCOG, Master SA, KAMC, KSA.
3. SERVICE DOCTOR, MOH, KSA.
4. Service Pharmacist, KSA.
5. Medical Intern, KSA.
6. Staff Nurse, MOH, KSA.

Manuscript Info

Manuscript History
Received: 10 October 2022
Final Accepted: 14 November 2022
Published: December 2022

Abstract

Background: In the fields of psychiatry, psychology, medicine, and dentistry, nail biting (NB) is a prevalent yet unsolved issue. Although many people assume that NB is a basic habit that can be readily corrected, many children who exhibit NB have previously attempted to correct the behavior and have failed.The aim of the present research focused on the reason for onychophagia or nail-biting if it is a psychological disease or a general habit and recommend some suitable suggestions.

Methods: An inductive research approach was suitable for the present research methodology as it involved a survey process. The research approach helped in collecting information in an effective way. A stratified random sampling method was considered for the present research method through the inclusion of participants that are suffering from the issue of nail-biting belonging to the UK. The sample size for the research methodology included a total of 350 participants belonging to the age groups of 18 to 50 years. The primary data collection method was considered for the present research methodology as it followed the cross-sectional method. The quantitative data analysis method would be considered under the primary research method and so a survey would be done.

Results: Of 380 study participants,more than half of them believe that nail biting is a psychological disorder (n= 219, 58.1%). Furthermore, about two thirds of study participants believe that nail biting is a common disorder among humans (n= 247, 65%). Most of study participants think that nail biting is curable (n= 296, 77.9%). Daily exercise is helping in reducing the habit of nail biting as reported by 178 (73.2%). Half of study participants were neutral with regard to the benefit of psychological treatment to nail biting (n= 184, 48.4%). Vast majority of study participants believed that exercise is effective for

Corresponding Author:- Dr. Hoda Jehad Abousada
Address:- Obestetric&Gynecology MRCOG, Master SA, KAMC, KSA.

enhancing mental stability (n= 318, 83.7%).Leading a life with a the disorder or nail biting issue was moderately painful among 165 participants (43.3%). Participants were asked about the cost of medication for onychophagia, most of participants responded with affordable cost (n= 270, 71.1%). The most frequent symptom of nail biting issue as reported by study participants was moderate span of time (n= 234, 61.6%).

Conclusion: Onychophagia is a psychological disorder from the perspective of study participants. Furthermore, they recommended medical treatment and stated that psychological treatment alone is not enough. Moreover, exercise helps with mental stability as reported by study participants.

……

Introduction:-

Both psychology and dermatology have had less articles published on nail biting (NB) [1-2]. Unfortunately, NB has defied attempts at resolution by the medical, psychological, and dental communities [3]. Those who engage in NB may want to see an end to it, but their attempts to do so have been fruitless. Many parents of children brought into clinics for the treatment of NB have attempted to assist by doing things like covering their kid's nail plate with substances that have an unpleasant taste. Nails have been protected with rubber or fabric in the past. Most of the time, these interventions do not cause the undesirable habit to disappear completely. Many youngsters that exhibit NB conduct may face consequences from their loved ones. There is some evidence that punishment and threat may not work to reduce the incidence of NB, and may instead enhance it. Someone exhibiting NB conduct may claim helplessness or inability to stop the behavior at times. Clinical practitioners treating children with attention deficit hyperactivity disorder (ADHD) may find NB useful in determining the optimal combination of medications to use [4].

Body-focused repetitive behavior (BFRB) disorders include onychophagia, or persistent nail biting, and onychotillomania, or repeated plucking and pulling of the nails [5]. The matrix, nail bed, nail plate, and periungual skin may all be negatively impacted by these conditions. Although nail biting and picking are common in the general population, particularly in children and individuals under stress, limited awareness of their clinical presentations, feelings of shame towards the habit, failure to refer to mental health specialists, and coexisting psychiatric conditions can all contribute to delayed diagnosis and treatment. Patients seldom appear with nail biting or nail picking as the primary symptom, thus a correct diagnosis requires a thorough history and physical examination. Dermatologists, internal medicine doctors, pediatricians, psychiatrists, and dentists all have a role in the care of onychophagia and onychotillomania [6-10].

In spite of the increasing focus on BFRB disorders, onychophagia and onychotillomania are still under-researched in the psychiatric and dermatological literature in comparison to other forms of self-inflicted dermatoses such as skin picking and hair pulling. The result has been diagnostic delays and the use of therapies with questionable efficacy due to a lack of information on these nail disorders.

Nail biting, or onychophagia, is recognized as a symptom of a number of mental problems. Nail biting may be seen as either a mental illness or a simple habit, as most individuals pick up the activity innocuously but get used to it with time [11]. Anxiety, fear, and other emotions may all play a role as key causes of this behavior. Nail biting is a common coping mechanism for individuals of all ages who are experiencing mental stress, worry, or dread. As a result, the mental problem situation of a person has been linked to this sickness [12]. The aim of the present research focused on the reason for onychophagia or nail-biting if it is a psychological disease or a general habit and recommend some suitable suggestions.

Methods:-

The research methodology considered the implementation of a descriptive research design as the research was done through a cross-sectional method. The descriptive type of research design was helpful for the present research proposal as it was fruitful in collecting and analyzing the data that is related to the topic [13].

Research Approach
An inductive research approach was suitable for the present research methodology as it involved a survey process. The research approach helped in collecting information in an effective way [14].

Research Population
The research involved a study on the habit of nail-biting that is called Onychophagia and thus, the survey was done targeting the population of the people who suffer from this habit. Therefore, the present study involved people within the age range of 18 to 50 years belonging to the UK [13].

Research Sample
A stratified random sampling method was considered for the present research method through the inclusion of participants that are suffering from the issue of nail-biting belonging to the UK. The sample size for the research methodology included a total of 350 participants belonging to the age groups of 18 to 50 years [14].

Research Tool
The research was done through a survey method and therefore it included a questionnaire incorporating a total of 12 multiple-choice questions. The questionnaire was sent via mail to the participants [13].

Data collection
The primary data collection method was considered for the present research methodology as it followed the cross-sectional method. The quantitative data analysis method would be considered under the primary research method and so a survey would be done [14].

Data analysis
The quantitative data analysis technique was considered for the present research as it was justified for the collection and analysis of the data. The selected data analysis method helped in accessing the information in an authentic manner [14].

Ethical consideration
The present research considered all the ethical considerations aspects while conducting the survey methods. The research was done following an authentic and valid process of data collection. The participants were well aware of the topic of the survey and the questions were only topic-related [13]. Moreover, no data or information would be breached.

Results:-

The number of participants included in the current study is 380. Study participants were asked about onychophagia as a sign of psychological disorders through a set of questions. Their answers are presented in table 1. It is noticed from the table that more than half of study participants believe that nail biting is a psychological disorder (n= 219, 58.1%). Furthermore, about two thirds of study participants believe that nail biting is a common disorder among humans (n= 247, 65%). Most of study participants think that nail biting is curable (n= 296, 77.9%). Daily exercise is helping in reducing the habit of nail biting as reported by 178 (73.2%). Half of study participants were neutral with regard to the benefit of psychological treatment to nail biting (n= 184, 48.4%). Vast majority of study participants believed that exercise is effective for enhancing mental stability (n= 318, 83.7%).

Table 1:- Participants responses to the survey questions.

Item	Yes	No	Neutral
1) Do you feel nail-biting is a psychological disorder?	219 58.1%	81 21.3%	87 20.6%
2) Do you think that taking medicines will help in addressing the issue of nail-biting?	76 20%	225 59.2%	79 20.8%
3) Is the issue of nail-biting a common disorder in human beings?	247 65%	78 20.5%	55 14.5%
5) Are nail-biting diseases completely curable?	296 77.9%	19 5%	65 17.1%
6) Do you consider that practicing daily exercise will assist in	278	36	66

diminishing the syndrome of nail biting?	73.2%	9.5%	17.4%
9) Do you consider that exercise for Onychophagia is a necessity?	252 66.4%	64 16.8%	64 16.8%
10) Do you feel any recovery or improvement after psychological treatment for nail-biting issue?	162 42.6%	34 8.9%	184 48.4%
11) Do you think that Exercise will be effective to enhance mental stability?	318 83.7%	18 4.7%	44 11.6%
12) Do you feel mental stabilization is the only solution for reducing the issue of nail-biting?	232 61.1%	74 19.5%	74 19.5%

Leading a life with a the disorder or nail biting issue was moderately painful among 165 participants (43.3%). The degree of pain is showed in figure 1.

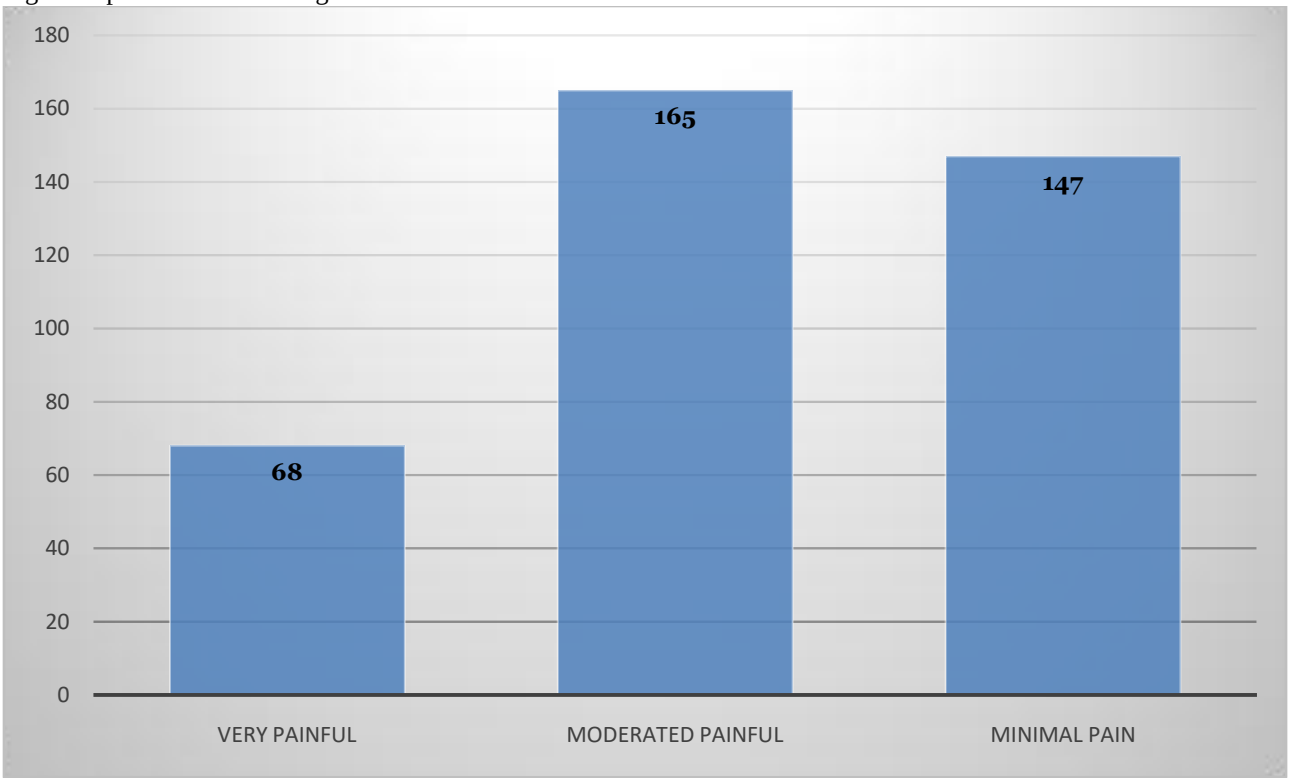

Figure 1:- Degree of pain to lead a life with nail biting issue.

Participants were asked about the cost of medication for onychophagia, most of participants responded with affordable cost (n= 270, 71.1%) (Figure 2).

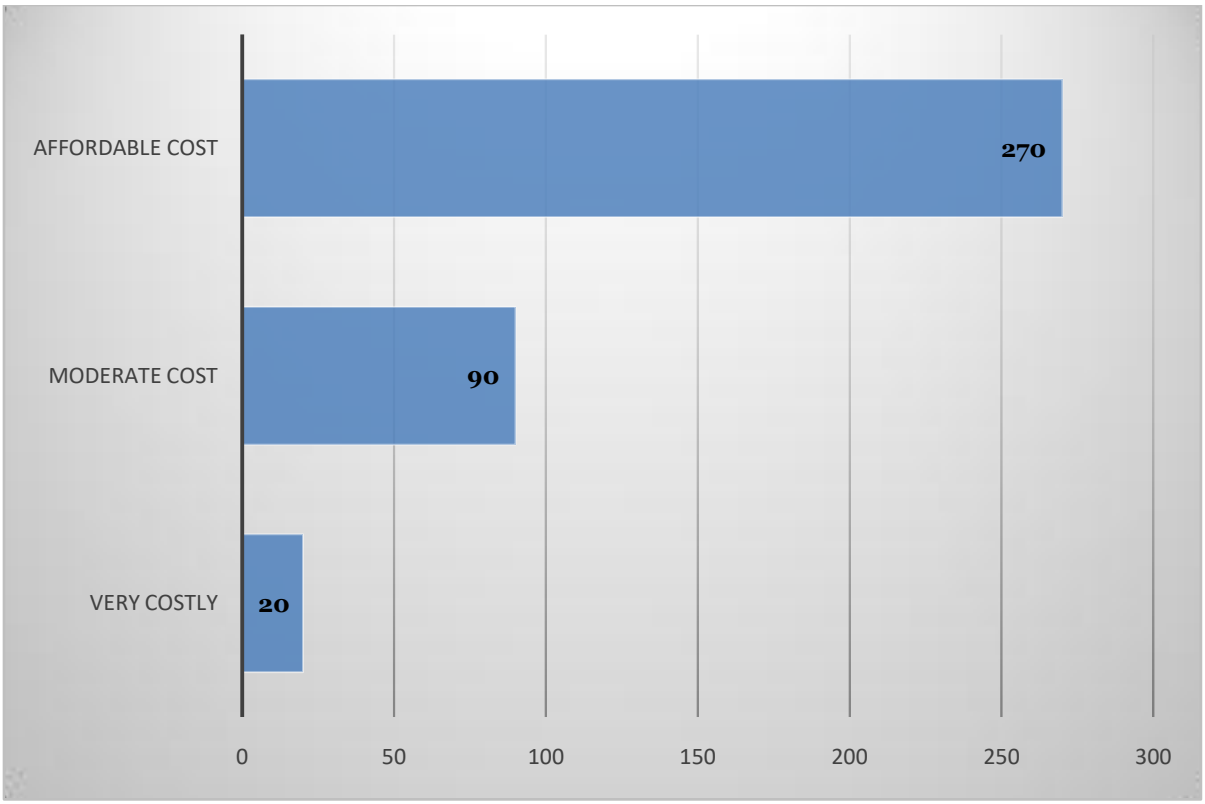

Figure 2:- Cost of medication treatment for nail biting.

The most frequent symptom of nail biting issue as reported by study participants was moderate span of time (n= 234, 61.6%). The frequent of nail biting issue is presented in figure 3.

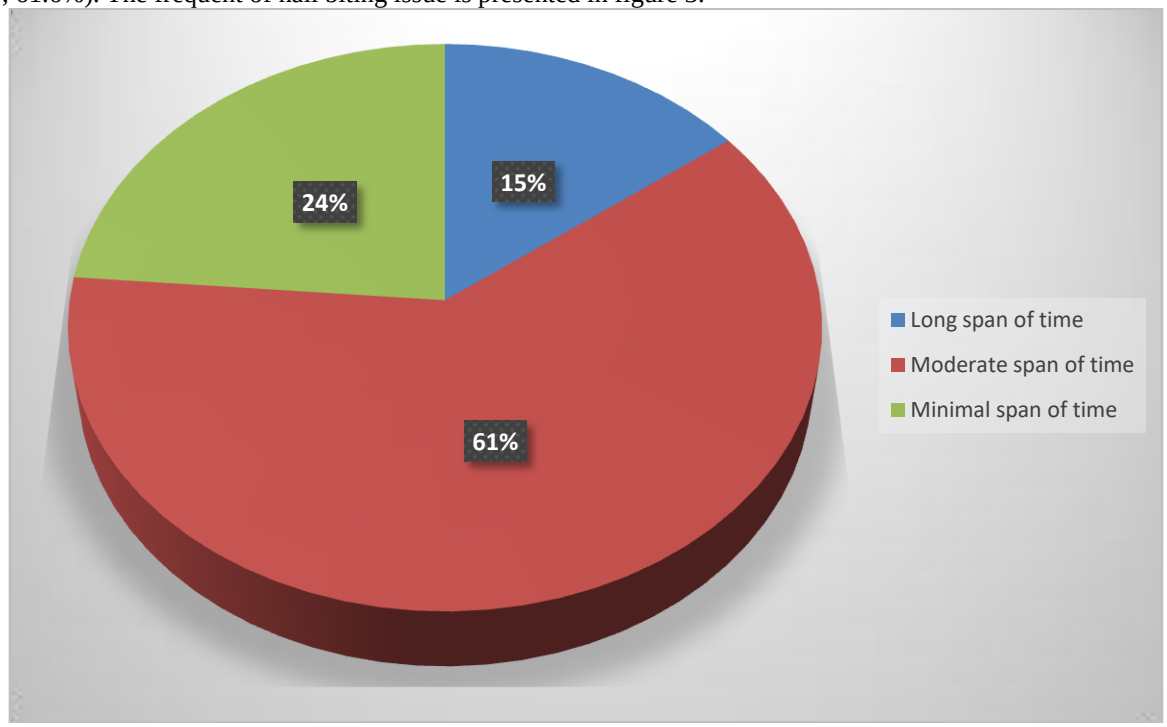

Figure 3:- Frequent symptoms of phobia.

Discussion:-

Typically, children don't start chewing their nails until they're about three or four. The prevalence of NB has been reported differently 3, and these accounts often conflict with one another. In children and teenagers, NB is more common than it is in adults [15]. It is not known how many children who display NB behavior are able to break the cycle and avoid the negative consequences of their condition.Rates of NB have been estimated to be between 20 and 33 percent in children aged 7 to 10 and between 45 and 55 percent in adolescents [16].

The prevalence of NB in Iranian school-aged boys was found to be 20.1% (95% CI: 15.9 to 24.2) and in Iranian school-aged girls to be 24.4% (95% CI: 20.1 to 28.7), according to a research conducted on a community sample of Iranian school-aged children. Biting one's nails has been shown to have no correlation with either gender, behavioral issues, ADD/ADHD, or issues with friends or peers. In addition, 36.8% (95% CI: 22.3 to 44.2) of children with NB had NB in at least one family member. In another study of American preschoolers aged 3 to 6, researchers found that NB affected 23% of the population [17]. Nail biting is inversely proportional to age, with less and fewer people engaging in the behavior as they become older [17]. One in twelve school-aged children in Mangalore, India, have NB, and it's more common in females than males. In children under the age of 12, 28% of male twins and 26% of female twins were diagnosed with NB. One in four boys (17.7%) and one in six (15.7%) of girls were found to have this condition together with finger sucking. 13 Nail biting affects around one-quarter of adult men [18].

Thumb sucking was found to be prevalent at 25.5% and lip biting at 3.0% among 5554 Delhi children aged 5-13 [19].Although there was no correlation between gender and oral habit 15, females were more likely to be thumb suckers than boys [20].When looking at individuals with temporomandibular joint discomfort and dysfunction, the prevalence of finger and NB was around 24.1% among those in their 15s.

Because of this, it is advised that anybody experiencing discomfort or problems in their temporomandibular joints be questioned about their oral habits, including NB. In addition, individuals experiencing discomfort or dysfunction in the temporomandibular joint (TMJ) should be consulted as part of their treatment plan [21].

The origins of NB remain a contentious topic. Some research has shown a link between NB and behavioral issues [22] and anxiety [23-24]; however, some researchers disagree. Having anxiety is not a character flaw but a symptom of the disease in children with NB (20,21) [22]. Verbal aggressiveness is a characteristic shared by those who have NB. 22 In children who are over the preschool age, oral habits like NB pose a threat to the development of malocclusion because of their environmental origins [25]. A rise in NB is thought to result from insufficient motor activity. Recent findings do not support the anxiety hypothesis for NB [25], however it was previously hypothesized that NB would relieve anxiety or tension. When people bite their nails, it's typically because they're bored or trying to solve a tough issue. If a nail biter is talking to someone or being punished for their habit, they will stop biting their nails [26]. Adult smoking and gum chewing are thought to be stand-ins for NB used by children [15]. Differentiating between severe and moderate NB in terms of the foundation for physical and social repercussions, the severity, the frequency, and the physiological processes seems to be warranted [27].

Conclusion:-

Under recognition of onychophagia as a body-focused repetitive behavior, is common in clinical practice. Nail biting and picking are not usually the predominant complaints of patients, which makes diagnosing these nail diseases difficult. Due to the possibility of comorbidity with other psychological illnesses, the diagnosis and treatment of these nail diseases need a team effort including specialists in other fields. Biters and pickers of nails are at risk for serious psychological and social problems as a result of their behaviors. There are currently no accepted therapies for onychophagia. To find successful treatments for either disease, larger clinical studies are required.

References:-

1. Halteh P., Scher R.K., Lipner S.R. Onychophagia: A nail-biting conundrum for physicians. J. Dermatol. Treat. 2017;28:166–172.
2. Pacan P., Grzesiak M., Reich A., Kantorska-Janiec M., Szepietowski J.C. Onychophagia and onychotillomania: Prevalence, clinical picture and comorbidities. Acta Derm. Venereol. 2014;94:67–71.
3. Lipner S.R., Scher R.K. Comment on “Psychocutaneous disease: Clinical perspectives” J. Am. Acad. Dermatol. 2017;77:e141–e142.
4. Gupta M.A., Gupta A.K. Self-induced dermatoses: A great imitator. Clin. Dermatol. 2019;37:268–277.

5. Foster L.G. Nervous habits and stereotyped behaviors in preschool children. J. Am. Acad. Child Adolesc. Psychiatry. 1998;37:711–717.
6. Ghanizadeh A. Association of nail biting and psychiatric disorders in children and their parents in a psychiatrically referred sample of children. Child Adolesc. Psychiatry Ment. Health. 2008;2:13.
7. American Psychiatric Association DSM-5 Task Force. Diagnostic and Statistical Manual of Mental Disorders: DSM-5. 2013. [(accessed on 27October 2022)]. Available online: http://dsm.psychiatryonline.org/book.aspx?bookid=556
8. Ghanizadeh A., Shekoohi H. Prevalence of nail biting and its association with mental health in a community sample of children. BMC Res. Notes. 2011;4:116.
9. Winebrake J.P., Grover K., Halteh P., Lipner S.R. Pediatric Onychophagia: A Survey-Based Study of Prevalence, Etiologies, and Co-Morbidities. Am. J. Clin. Dermatol. 2018;19:887–891.
10. Erdogan H.K., Arslantas D., Atay E., Eyuboglu D., Unsal A., Dagtekin G., Kilinc A. Prevalence of onychophagia and its relation to stress and quality of life. Acta Derm. Alp. PannonicaAdriat. 2021;30:15–19.
11. Drumond CL, Ramos-Jorge J, Vieira-Andrade RG, Paiva SM, Serra-Negra JM, Ramos-Jorge ML. Prevalence of probable sleep bruxism and associated factors in Brazilian schoolchildren. International journal of paediatric dentistry. 2019 Mar;29(2):221-7.
12. Bano Z, Warraich IA, Naz I, Shahzadi A. Socioeconomic Status, Dependent Personality and Nail Biting Behavior Among Adults: Evaluation of Structural Relationship. Review of Economics and Development Studies. 2019;5(2):387-96.
13. Ørngreen R, Levinsen K. Workshops as a Research Methodology. Electronic Journal of E-learning. 2017;15(1):70-81.
14. Bairagi V, Munot MV, editors. Research methodology: A practical and scientific approach. CRC Press; 2019 Jan 30.
15. Tanaka OM, Vitral RW, Tanaka GY, et al. Nailbiting, or onychophagia: a special habit. Am J Orthod Dentofacial Orthop. 2008 Aug;134:305–8.
16. Leme M., Barbosa T., Castelo P., Gavião M.B. Associations between psychological factors and the presence of deleterious oral habits in children and adolescents. J. Clin. Pediatr. Dent. 2014;38:313–317.
17. Ooki S. Genetic and environmental influences on finger-sucking and nail-biting in Japanese twin children. Twin Res. Hum. Genet. 2005;8:320–327.
18. Pacan P., Reich A., Grzesiak M., Szepietowski J.C. Onychophagia is associated with impairment of quality of life. Acta Derm. Venereol. 2014;94:703–706.
19. Williams T.I., Rose R., Chisholm S. What is the function of nail biting: An analog assessment study. Behav. Res. Ther. 2007;45:989–995.
20. Stewart C., Lipner S.R. Insights into recurrent body-focused repetitive behaviors: Evidenced by New York Times commenters. Arch. Dermatol. Res. 2020;312:629–634.
21. Shin J.O., Roh D., Son J.H., Shin K., Kim H.S., Ko H.C., Kim B.S., Kim M.B. Onychophagia: Detailed clinical characteristics. Int. J. Dermatol. 2021;61:331–336.
22. Anolik R.B., Shah K., Rubin A.I. Onychophagia-induced longitudinal melanonychia. Pediatr. Dermatol. 2012;29:488–489.
23. Baydaş B., Uslu H., Yavuz I., Ceylan I., Dağsuyu I.M. Effect of a chronic nail-biting habit on the oral carriage of Enterobacteriaceae. Oral Microbiol. Immunol. 2007;22:1–4.
24. Waldman B.A., Frieden I.J. Osteomyelitis caused by nail biting. Pediatr. Dermatol. 1990;7:189–190.
25. Tosti A., Peluso A.M., Bardazzi F., Morelli R., Bassi F. Phalangeal osteomyelitis due to nail biting. Acta Derm. Venereol. 1994;74:206–207.
26. Szinnai G., Schaad U.B., Heininger U. Multiple herpetic whitlow lesions in a 4-year-old girl: Case report and review of the literature. Eur. J. Pediatr. 2001;160:528–533.
27. Tosti A., Piraccini B.M. Warts of the nail unit: Surgical and nonsurgical approaches. Dermatol. Surg. 2001;27:235–239.