

Socio-Demographic and Clinical Profile of Infantile Masturbation Syndrome

Khadija Rahman¹, Mohammad Saifuddin Khaled², Asma Akter³, Morsheda Khanam⁴,
Farhana Rahat⁴, Sheikh Farjana Sonia⁴, Ruma Parvin⁵

Abstract

Background: Masturbation is not uncommon in younger children. Due to variable presentation in early childhood often leads to misdiagnosis and may result in unnecessary investigation and treatment.

Materials & Method: This retrospective case study was conducted at outpatient department of Rehabilitation and Neurology unit of Dr. M R Khan Shishu Hospital and Institute of Child Health between 2013-2019.

Result: Among 40 patients, majority (90%) had age of onset within 36 months of age. Mean and median age were 27.45 months and 25.5 months respectively, the range was between 4 months to 84 months. Male: female was 1:1.2. Most of the children came from urban area (85%) and from single family (77.5%). All 40 children shared common features like stereotype movement with variable duration, no alteration of consciousness, cessation with distraction when attempted, remained responsive during the events, their neurological examination was normal and no abnormalities were detected in laboratory studies. Thirty-three (82.5%) children did this behaviour on prone position. Thirty-one (77.5%) children had vocalization. Duration of episode was 5-10 min in 19(47.5%) children. Frequency of masturbation was up to 5 times per day in 30(75%) children. Twenty-two (55%) children did this behaviour when remained unnoticed. Antiepileptic drug was given to 14(35%) children but had no clinical improvement. Home video recordings were available in 18(43.9%) children.

Conclusion: Early diagnosis from the knowledge of clinical manifestations helps to minimize unnecessary laboratory investigations and use of drugs.

Key words: Masturbation, Infant, Early childhood

DOI: <https://doi.org/10.3329/bjch.v46i2.72115>

Introduction:

Infantile masturbation is characterized by self-stimulation of the genitalia which was frequently associated with unusual posture and movement, sweating, tachypnoea and it begins typically in infancy and early childhood.¹ It may consist of rhythmic

rocking movements in sitting or lying position or rhythmic hip flexion and adduction. Infantile masturbation is more common in girls, usually occurs at two to three year of age and is often associated with perspiration, irregular breathing and grunting but no loss of consciousness.² Childhood masturbation or gratification disorder came in concern since 1909.³⁻⁶ However, masturbation in children is less commonly addressed in research.^{3,5} Reports on infant and early childhood masturbation are sparse. It is normal behaviour in adolescence, occurring in 90% to 94% of male and 50% to 60% of female at some point in their lives.^{2,7} In infants and young children, unusual posture and movements occur during masturbation may be misdiagnosed as seizures, movement disorder, abdominal pain, colic, or other neurologic or medical problems.⁸⁻¹¹

1. Associate Professor (Pediatric Rehabilitation Unit), Dr. M R Khan Shishu Hospital & ICH, Dhaka
2. Associate Professor (Pediatric Pulmonology), (NIDCH), Mohakhali, Dhaka
3. Child psychologist, Dr. M R Khan Shishu Hospital & ICH, Dhaka
4. Assistant Professor of Pediatrics. Dr. M R Khan Shishu Hospital & ICH, Dhaka
5. Associate Professor of Pediatrics, Dr. M R Khan Shishu Hospital & ICH, Dhaka.

Correspondence: Dr. Khadija rahman, Associate Professor (Pediatric Rehabilitation Unit), Dr. M R Khan Shishu Hospital & ICH, Mirpur-2, Cell no: 01716989903, E-mail:k.rahman0303@gmail.com Mobile-01716989903

Received: 29/08/2021

Accepted: 05/04/2022

Bangladesh is a country where sex has been merged with plenty of myths and talking regarding sex openly has not been encouraged.^{12,13} But masturbatory habits are quite prevalent among children in our country and health personnel specially paediatrician need to be aware for early diagnosis and management which can reduce sufferings of parents and patients. Because of social and cultural stigmata, early diagnosis and management often become difficult.

It is accepted now that masturbation is a normal part of human sexual behaviour. There is few publications on gratification disorder (masturbation) in early childhood.¹⁴ The aetiology of childhood masturbation and its predisposing factors are still controversial and poorly understood and has been linked to emotional deprivation, which may in turn lead to more self-stimulation.¹⁵ In our study we reviewed socio-demographic and clinical features of masturbation in early childhood with the aim that it will help the clinicians for their consideration as an entity where feasible which ultimately reduce sufferings of patients, parents and health personnel also.

Materials and methods:

This retrospective study was conducted based on the recorded data from outpatient department of Rehabilitation and Neurology unit of Dr. MR Khan Shishu Hospital and Institute of Child Health from 2013-2019. A data collection sheet was developed including written information on history, socio-demographic characteristics, clinical features of the movement, use of any drug especially antiepileptic drug and about any investigations like electroencephalogram (EEG) or others. Total sample size composed of 40 patients of both gender from 4 months to 84 months. Clinical examinations, neuro-developmental assessment and psychological assessment was done in all patients.

In some patient’s EEG was done especially when children attended in our department with the diagnosis of epilepsy and who were on antiepileptic drug. Consent was obtained from parent or caregiver of all participants. All children of 5years or below with features of masturbation but otherwise normal on psychological assessment were included. Children above 5 years, diagnosed cases of epilepsy, problems related with irritation in genital area, abdominal colic and urinary tract infection were excluded. Diagnosis was done on the basis of findings observed in previous studies.^{1,4,16,17} Children who had fulfilled the criteria mention below was considered to have masturbating behaviour.

- 1) Stereotype movement with variable duration
- 2) No alteration of consciousness

- 3) Cessation with distraction when attempted
- 4) Remained responsive during the events
- 5) Neurological examinations revealed normal
- 6) Normal findings in laboratory studies.

We reviewed the socio-demographic data, clinical history, examination and home video recording (where available). Age was noted accurately in complete months. Socioeconomic status was determined by monthly income of the parents and monthly income <10,000 taka/month considered as lower income group, 10,000-20,000 taka/month as middle income group and >20,000 taka/month as higher income group.¹⁸ The child who stay with father, mother and/ caregiver has been levelled as single family and those who live with parents along with grandparents, uncle, aunt, were levelled as joint family.¹⁸ Data were subjected to analysis according to standard procedure. SPSS statistical software (version 20) was used for data analysis.

Results:

Among 40 children majority had age of onset within 36 months of age (Fig.-1). Mean age was 27.45 months. The minimum and maximum age of onset were 4 months and 84 months respectively. Female was predominant, male: female ratio was 1:1.2 (Fig.-2). Majority (85%) of children came from urban area and only 6(15%) children from rural area (Table-I). 1(2.5), 21(52.5%) and 18(45%) children came from low, middle and higher income group respectively. Regarding family structure, 31(77.5%) children came from single family and 9(22.5%) children from joint family (Table-I).

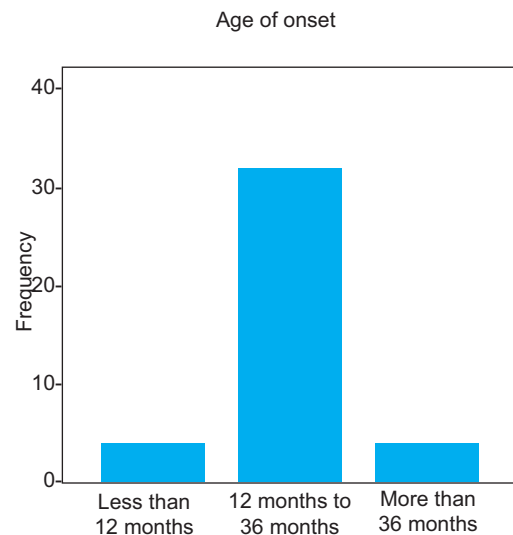


Fig.-1: Distribution of age of onset(n=40)

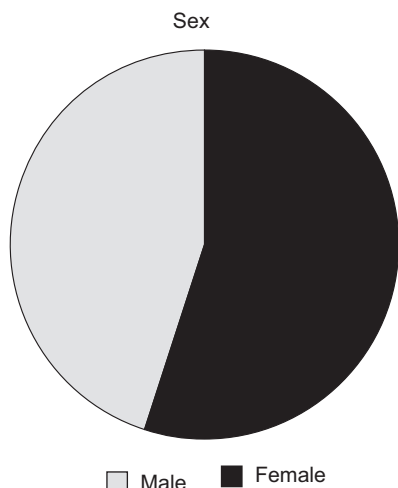


Fig-2: Distribution of gender (n=40)

23(57.5%), 12(30%) and 5(12.5) children had 1 sibling, ≥2 sibling and no sibling respectively. Only 5(12.5%) mothers done job and mothers of 35(87.5%) children were housewife. 36(90%) children were taken care by his /her mother, only 4(10%) children had caregiver other than mother (Table-I).

Table-I
Socio-demographic profile (n=40)

Socio-demographic information's	Description	Frequency (%)
Residence	<i>Urban</i>	34 (85%)
	<i>Rural</i>	06 (15%)
Family structure	<i>Nuclear</i>	31 (78%)
	<i>Joint</i>	09 (22%)
No of siblings	<i>No sibling</i>	05 (12%)
	<i>One sibling</i>	23 (58%)
	<i>Two or more siblings</i>	12 (30%)
Profession of mother	<i>Housewife</i>	35 (88%)
	<i>Working mother</i>	05 (12%)
profession of father	<i>Service holder</i>	28 (70%)
	<i>Business</i>	10 (25%)
	<i>Others</i>	02 (05%)
Income per month (included mothers income)	<i>Lower income group</i>	01 (02%)
	<i>Middle income group</i>	21 (53%)
	<i>Higher income group</i>	18 (45%)
Care giver	<i>Mother</i>	36 (90%)
	<i>Other than mother</i>	04 (10%)

Table-II
Clinical information (n=40)

Clinical Characters	Frequency (%)
Colour change	
Yes	36 (90%)
No	04 (10%)
Posture	
Prone	33 (83%)
Prone to supine	05 (12%)
Combination of posture	02 (05%)
Duration of episode	
<05 min	12 (30%)
05-10 min	19 (48%)
>10 min	09 (22%)
Frequency per day	
<5 times	30 (75%)
≥5 times	10 (25%)
Vocalization	
Yes	31 (78%)
No	9 (22%)
Activity preference	
When unnoticed	22 (55%)
Both unnoticed and noticed	18 (45%)

Table-III
Information about investigations and drugs (n=40)

Investigation and drug	Frequency (%)
EEG	
Done	19 (47.5%)
Not done	21 (52.5%)
AED used	
Yes	14 (35%)
No	26 (65%)

Discussion:

Masturbation in children is commonly recognized to be as a variant of normal behaviour.¹⁴ It is notable that these events may be observed at any age in early childhood. There is even one published case of masturbation in utero.¹⁹ If it is unrecognized, may lead to considerable parental anxiety, unnecessary investigations, and inappropriate and potentially

harmful therapies. Misdiagnosis commonly occurred when direct stimulation of genitalia with the hands is absent.²⁰ Masturbatory behaviour had been mistaken for epilepsy, movement disorder, abdominal pain, colic, or other neurologic or medical problems.^{8-11,16} When there are repeated jerky spasm, there may be confusion with epileptic infantile spasm often leads to over investigations^{11,21,22} and occasionally to medication including with anti-epileptic drugs.^{11,22,23} We reviewed socio-demographic and clinical characteristic of masturbatory behaviour in forty patients. Among them the age of onset in 36 (90%) children were within 36 months of age with a median age of 27.45 months and the youngest patient was of four months of age. Our findings were almost similar as study done by Young ML et al.¹ Female was predominant which is similar as study done by Nechay A et al.¹⁶ and Biswajit B et al.²⁴ This present study showed majority, 34(85%) children came from urban area but the actual prevalence in rural area may be higher and this difference may be due to ignorance and illiteracy of the problem, moreover health care facility for this special behavioural problem in rural area of Bangladesh is not available. We got no relationship of masturbatory behaviour with parental income. Most (77.5%) of our children came from nuclear family and mother of 35(87.5%) children were house wife and father of 28(70%) children were service holder, which is almost similar as the study done by Biswajit B et al.²⁴ in West Bangle which is nearby our country with almost similar life style. We found 23(57.5%) children had one sibling, this is usual tradition of our society moreover most of behavioural problem occur in small familial structure. Review of clinical characteristics of these 40 children revealed several common features. All 40 children exhibited stereotyped movement with no alteration of consciousness and children were distracted when attempted which were similar in studies done by Young ML et al.¹ and Fleisher DR et al.¹⁰ Majority(82.5%) of children did this event on prone followed by prone to supine position which is consistent with study done by Ajlouni HK et al.⁴ Duration of episode were 5 minutes to 10 minutes in most (47.5%) of the children, which is similar as study done by Nechay A et al.¹⁶ and Shamion H.¹⁷ Frequency of events per day were up to 5 times in 30(75%) children which is similar in a study done by Ajlouni Hk et al.⁴ Majority (90%) patients had facial flushing which is similar as study done by Young ML et al.¹ Vocalization heard in

31(77.8%) children but Young ML et al.¹ found vocalization in all of 12 children in their study and in 13(20.07 %) children in a study done by Biswajit B et al.²⁴ In this study, 19(47.5%) children liked to do this activity when remained unnoticed. Nechay A et al.¹⁶ and Biswajit et al.²⁴ showed almost similar finding in their study. All 40(100%) children were normal in neurological examination which is consistent with study done by Young ML et al.¹ Psychological assessment of all 40(100%) children revealed normal but had problems (restlessness, unusual anger, poor concentration etc) related with masturbation.

Antiepileptic drugs were given in 14(35%) children because of presumed diagnosis of epilepsy but did not have any clinical benefit, which is similar with a study done by Ajlouni HK et al.⁴ Video recording of events was most helpful for our understanding about the nature of the episodes, for exclusion of differential diagnosis and to take decision for investigation and management of these children. In our study we tried to collect home video but in 21(52.5%) cases home video recording were available which helped us for confident diagnosis. Similar to our study video recording played important role in study done by Nechay A et al.¹⁶ Young ML et al.,¹ Biswajit B et al.²⁴ and Gunduz S et al.²⁵

Conclusion:

Infantile masturbation is not uncommon in younger children. Careful history taking, direct observation, home video recording of events is very much important to diagnose and eliminate the extra burden of laboratory test and unnecessary use of drugs.

Reference:

1. Young ML, Erika F, Goldstein J, Manik JW. Masturbation in infancy and early childhood presenting as a movement disorder: 12 cases and a review of the literature. *Pediatrics* 2005;116:1427-32.
2. Mikati MA, Obeid MM. Conditions that mimic seizures. *Nelson Textbook of Pediatrics*. In: Kieigman RM, St Geme JW, Blum NJ, Shah SS, Tasker RC, Wilson KM, eds. *Nelson Textbook of Pediatrics*. 21st ed. Philadelphia: Elsever, 2020:3126.
3. Doust ZK, Shariat M, Zabandan N, Tabrizi A, Tehrani F. Diagnostic value of the urine mucus test in childhood masturbation among children below 12 years of age: a cross-sectional study from Iran. *Iran J Med Sci*. 2016;41(4):283-87.
4. Ajlouni HK, Daoud AS, Ajlouni SF, Ajlouni KM. Infantile and early childhood masturbation: sex hormones and clinical profile. *Ann Saudi Med*. 2010;30(6):471-74.
5. Mallants C, Casteels K. Practical approach to childhood masturbation- a review. *Eur J Pediatr*. 2008;167(10): 1111-17.

6. Tashakori A, Safavi A, Neamatpour S. Lessons learned from the study of masturbation and its comorbidity with psychiatric disorders in children: the first analytic study. *Electron Physician*. 2017;9(4):4096-4100.
7. Unal F. "Predisposing factors in childhood masturbation in Turkey". *Fur J peditr*. 2020;159:338-42.
8. Bower B. "Fits and other frightening or funny turns in young children". *Practitioner*. 1981;225:297-304.
9. Shuper A, Mimouni M. "Problems of differentiation between epilepsy and non-epileptic paroxysmal events in the first year of life" . *Arch Dis Child*. 1995; 73:342-44.
10. Fleisher DR, Morrison A. "Masturbation mimicking abdominal pain or seizures in young girls". *J Pediatr*. 1990; 116:810-14.
11. Mink JW, Neil JJ. "Masturbation mimicking paroxysmal dystonia or dyskinesia in a young girl". *Mov Disord*. 1995;10:518-20.
12. Arafat SMY, Ahmed S. Burden of misconception in sexual health care setting: a cross-sectional investigation among the patients attending a psychiatric sex clinic of Bangladesh. *Psychiatry J*. 2017; 2017:9827083.
13. Ahsan MS, Selim S, Ahmed S. Female sexual dysfunction and associated co-morbidities: a cross sectional study with Female Sexual Function Index (FSFI) in a tertiary care hospital of Bangladesh. *Bang J Psych*. 2016; 30(2):27-31.
14. Leung AK, Robson WL. Childhood masturbation. *Clin Pediatr*1993;32:238-41.
15. McCray GM. "Excessive masturbation of childhood is a symptom of tactile deprivation?" *Pediatrics*. 1978;62:277-79.
16. Nechay A, Ross LM, Stephenson JB, O'Regan, M. Gratification disorder ("infantile masturbation"): a review. *Arch Dis Child*. 2004;89(3):225-26.
17. Hiyam S. Early childhood masturbation: A clinical study. *JMJ*. 2005;39 (1): 23-26.
18. Sultana R, Khan NZ, Hoque SA, Quaderi HR. Socio-Environmental Factors in Children with Autism Spectrum disorders in Bangladesh. *Bangladesh J Child Health*. 2020;44 (2) :78-81.
19. Meizner I. Sonographic observation of in utero fetal "masturbation". *J Ultrasound Med*1987;6:111.
20. Stephenson JBP. *Fits and faints*. London: MacKeith Press, 1990:143.
21. Wulff CH, Ostergaard JR, Storm K. Epileptic fits or infantile masturbation? *Seizure*1992;1:199–201.
22. Couper RT, Huynh H. Female masturbation masquerading as abdominal pain. *J Pediatr Child Health* 2002;38: 199-200.
23. Livingston S, Berman W, Pauli LL. Masturbation simulating epilepsy. *Clin Pediatr*. 1975;14:232-34.
24. Biswajit B, Mithun K, Arohan S, Mousumi M, Shibnath D, Raveesh K. Self gratification Habits among children under five years of age: A Prospective Cohort Study. *Journal of Clinical and Diagnostic Research*. Sep 2020; 14(9); 1-5.
25. Gunduz S, Usak F, Yuksel CN, Eren A. Early childhood masturbation. *Med J Islamic World Acad Sci*. 2015; 23: 59-62.