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RESEARCH ARTICLE

A COMMUNITY BASED SURVEY ON AGE AT FIRST MASTURBATION (ORGASMIC EXPERIENCE)  
AMONG COLLEGIATE YOUNG ADULT MEN IN PONDICHERRY, SOUTHERN INDIA

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ABSTRACT

**Background:** The information on mean age at first nocturnal ejaculation and first masturbation among male individuals are sparse in India. In the era of computers, improved education level, social networks, and entertainment and level, it is necessary to know the onset of nocturnal ejaculation and sexual activity among males at frequent intervals.

**Objective:** to find the age at first nocturnal ejaculation and first masturbation (Orgasmic experience) among collegiate young adult men.

**Methodology:** A community based descriptive cross sectional survey was undertaken in the selected 16 colleges on different education courses during October 2013 to February 2014 by using the pilot tested, self administered anonymous questionnaire. The detailed information was collected on nocturnal ejaculation and masturbation related variables. Analysis was done using SPSS software package.

**Results:** The number of young adults participated in this study was 686 and the response rate to all the questions was 90%. Eighty percent of the subjects were aged less than 23 years. Nearly 20 percent of the participants did not share information on nocturnal ejaculation and masturbation practices. The mean age at experiencing first nocturnal ejaculation was  $15.3 \pm 1.5$  years (95% CI 15.13 – 15.45) and first orgasmic experience (Masturbation) was  $15.4 \pm 1.6$  years (95% CI 15.21 - 15.55). There was statistical significant difference between students of difference courses on age at first nocturnal ejaculation and first masturbation ( $p < 0.003$ ).

**Conclusion:** The mean age at the onset of sexual maturity among males is 15 years. The difference between onset of nocturnal ejaculation and first solitary masturbation was narrow and a periodical study on these factors is needed in future in India.

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INTRODUCTION

Masturbation is an act of exciting the sexual organs by rubbing, stroking or fondling, pressing or other forms of handling (Walter O Bockting, 2002). It is also called as orgasmic experience. Masturbation is a unique human behaviour and express sexual outlet related to the onset of sexual development. It is considered as normal healthy sexual development starts during adolescence, and maturation of sex hormones predisposes to the activity which every one indulges in some part in life. (Shaeer 2013, Heitham K. Ajlouni et al., 2010). It is also proposed that age at the first conscious solitary ejaculation be used as an index of maturation of male puberty and and through this many people learn about their bodies and sexual pleasures (Laron et al., 1980). In males, masturbation happens beyond exciting the sexual organs and continues until the point of intense sexual pleasures or orgasm occurs. It is controlled by three important factors namely

hormonal, emotional and environmental factors. (Steven D Pinkerton et al., 2002, Van Anders et al., 2009, Josie Lipsith et al., 2003) Recent studies proved interplay of genetic and environmental factors in onset of adolescence (Alanko et al., 2013).

The age for conscious nocturnal ejaculation is considered as onset of menarche in male and usually it precedes the onset of masturbation. Nocturnal emission is common during adolescence and considered as an equivalent to menarche in girls. Ninety seven percent of men experience nocturnal ejaculation by the age of 24 (Kinsey Alfred et al., 1948, Indonesia survey 2004). Some studies have provided the beneficial aspects of masturbation either solitary or heterosexual among men in reduction of prostate cancer, testicular tumour and mental health and sexual transmitted diseases and being promoted as alternative behaviour to sexual intercourse. (Brody 2010, Leitzmann et al., 2004, Jenny A Higgins et al., 2010). It is estimated to be young men masturbate more frequently than young women (2 to 4 times per month for women, 4 to 9 times per month for men).

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(David Hurlburt *et al.*, 1991). The age at first orgasmic experience of men or solitary masturbation may not be same throughout the world and in different ethnical groups as it is known to be influenced by various factors like of independency, access to education, entertainment, media, social network and peer group motivational factors. There is a declining trend in age at onset of sexual maturity from few decades. There are social stigma, myths and taboos in sharing information on their sexual activities among men throughout the world and the responsiveness is varying from 60 to 80 percent (Ibtihaj *et al.*, 1974, Jenny A Higgins *et al.*, 2010). This community based study is aimed to find the age at first nocturnal ejaculation and first orgasmic experience or masturbation among collegiate young adult men in south India.

## MATERIALS AND METHODS

### Study design and period

A cross sectional, descriptive, community based survey was undertaken in Pondicherry with the above mentioned objectives among the collegiate individuals. The study was approved by the Institutional Ethical committee (Human studies) of the institute. The study period was between October 2013 to February 2014.

### Survey Settings

The data for this cross sectional survey was collected from colleges of Pondicherry. There were 60 colleges consists of engineering, Medical, Arts, Commerce, Business Management, Polytechnics, Science and Law institutions in Pondicherry and ... number were male students. Among the above colleges 16 colleges were selected to represent the each course so that the results will provide many details about the objectives of the study. The permission from the respective college administration and authorities were taken before starting the survey.

### Selection of age group

The onset of age at first masturbation or solitary masturbation among male individuals starts either in early or middle adolescence period and few during late adolescence period. The majority of the subjects would have experienced the first solitary masturbation by late adolescence period and early adulthood. It is expected that the individuals may share or provide information on masturbation during this age or after completion of 16 years. The response rate would be higher and able to understand the question on sexual activity of the men or recollect them. Hence the age group was selected from late adolescence period and young adulthood. The survey was planned to include the individuals aged between 17 and 26 years. Ten years group shows the similar behaviour and practices considering the exposure to similar socio educational background, cultural background, entertainment, media and environment.

### Sample size and Sampling techniques

Sample size was estimates to be 650 including non response rate of 20%. A Multi phase, stratified random sampling

technique was applied in selection of 650 sample subjects for the survey. In the first stage, all the colleges having different courses (Engineering, Medical, Dental, nursing, Science, Arts and Polytechnic) were listed. Colleges from each course or category were selected using the lot method in the second stage. Third stage included the selection of class /semester from each college as per the second stage by random. The list of the male students present in the lecture hall on the day of the survey was prepared and male students were segregated from female students.

### Data Collection Procedure

All students in the class room were invited to participate in this survey by the investigators. During the class period devoted to the survey, investigators informed the students regarding the study with the objectives concerning their sexual attitude, activities and practices. Procedure for the survey was explained to the students in the local (Tamil) and English languages, assessing the potential respondents that the participation is voluntary and anonymous, assured them that their responses would be kept confidential. They were requested to share the information by recollection method on the variables mentioned in the questionnaire. The anonymous questionnaire was distributed to students in the lecture halls along with Consent forms and requested to return the signed, completed anonymous questionnaire to a sealed box. No incentives of any kind were offered to the participants.

### Data

Self administered survey instruments was anonymous in nature which was pre tested, semi open ended questions consisted of two pages questionnaire with 18 questions on 5 parts Socio demographic factors, sexual behaviours, sexual activities, sexuality perceptions and life style practices focussing on young adult men groups at the collegiate level of education was administered to all the voluntary subjects in the lecture hall. Anonymity regarding the name and place was planned in this study to get the correct and confidential information. Each questionnaire would take 15 minutes to complete by the students. If necessary, the investigators guided the subjects in case of doubt about understanding the variables.

### Data analysis and Statistical tests

The data were analysed using SPSS version 20 for frequency, percentage, proportions, chi square test, Student's t test and ANOVA test and significance of associations at the level of  $p < 0.05$ . The degree category was included in the analysis of graduate students of Arts, Commerce, Science and Business administration.

## RESULTS

The total number of 686 individuals participated in this study from 16 selected colleges of Pondicherry in Southern India. Participants were aged between 17 to 28 years and among them more than two thirds of the individuals were aged less than 22 and 8 percent were aged above 25 years. Table 1 showing the subjects were from courses on Engineering, Medical, Degree,

Diploma and Law were 48.7%, 17.9%, 22%, 6.6% and 4.7% respectively. The distribution of age of the individuals in different courses is not uniform. Nearly 80% of individuals aged above 24 years were the students belonging to degree courses. The majority were Hindu religion followers and negligible numbers were other religion followers in this study. The total response rate to all questions were 95% and the response rate for the age at nocturnal emission was 25% and age at first masturbation was nearly 20% as shown in Table 2. Nearly one third of Engineering and Law courses subjects did not respond to the questions on first nocturnal ejaculation and masturbation.

## DISCUSSION

This survey was planned to estimate the age at first masturbation or orgasmic experience among male individuals who were completing the adolescent age and entering into adulthood. Table 1 shows nearly 80% of participants in this study were aged less than 24 years. The male individuals in the age of 24 years and above were in the Degree courses includes the post graduate students. This has not going to influence on information sharing on their sexual activity practices. Most of the studies were conducted among university students and in general population were aged between 20 and 50 years (Aksoy *et al.*, 2012, Alanko *et al.*, 2013, Giulia Rastrelli *et al.*, 2013).

**Table 1. Characteristics of collegiate male participants according to their age and Education courses**

Age group in Years	Engineering	Medical	Degree	Diploma	Law	Total	N (%)
<20	175	28	37	21	0	261	(38)
20-21	113	60	14	8	6	201	(29.3)
22-23	35	26	19	8	7	95	(13.8)
24-25	8	8	36	3	17	72	(10.5)
>25	3	2	45	5	2	57	(8.3)
Total N (%)	334 (48.7)	724 (18.1)	151 (22.0)	45 (6.63)	32 (4.7)	686	(100)

**Table 2. Non response rate for questions on nocturnal ejaculation and masturbation among collegiate students**

Courses	Total	Response to Nocturnal ejaculation		Response to Masturbation	
		No. N (%)	Yes. N (%)	No. N (%)	Yes. N (%)
Engineering	334	131 (39.2)	203	110 (32.9)	224
Medical	124	22 (17.7)	102	9 (7.2)	115
Degree	151	7 (4.6)	144	8 (5.2)	143
Diploma	45	1	44	1	44
LLB	32	11 (34.3)	21	9 (28.0)	23
Total N (%)	686	172 (25.0)	514	137 (19.9)	549

**Table 3. Mean age of first nocturnal ejaculation and masturbation (orgasmic experience) among collegiate young adult men**

Courses	Number	Nocturnal ejaculation	Mean + SD (95%CI)	Number	Nocturnal ejaculation	Mean + SD (95%CI)
Engineering	203	15.5+ 1.9	(15.26-15.79)	224	15.3 + 2.1	(15.05-15.60)
Medical	102	14.9 +1.6	(14.55-15.17)	115	15.2+ 2.0	(14.84-15.59)
Degree	144	15.4 + 1.7	(15.09-15.66)	143	15.7+ 1.7	(15.44-16.00)
Diploma	44	14.5+ 1.6	(13.95-14.95)	44	14.5+ 1.4	(14.07-14.92)
Law	21	16.3+1.4	(15.65-16.91)	23	16.2+2.4	(15.17-17.17)
Total	514	15.3 + 1.5	(15.13-15.45)	549	15.4+ 1.6	(15.21-15.55)
Urban	309	15.3+1.8	(15.09-15.49)	332	15.3+ 2.0	(15.11-15.54)
Rural	205	15.3+1.8	(15.03-15.53)	217	15.5+1.9	(15.19-15.71)
Home	313	15.4+1.9	(15.16-15.57)	331	15.9+2.0	(15.2-15.8)
Hostel	202	15.2+1.7	(14.93-15.41)	218	15.1+ 1.9	(14.7-15.4)

Table 3 shows the mean age at first Nocturnal Ejaculation and first orgasmic experience or masturbation was 15.3±1.5 years and 15.4±1.6 years respectively. The differences in means age at first nocturnal ejaculation and first masturbation were observed to be statistically significant ( $p < 0.001$ ) between different courses individuals. The Diploma student had reported the early experience (14.5+ 1.6 years) and little late experience by Law students (16.3+ 2.1 years) both in nocturnal ejaculation and masturbation. The differences between mean age at onset of nocturnal ejaculation and masturbation were found to be statistically significant ( $p < 0.003$ ). Similarly there were no statistically significant differences between residential status on Urban, Rural, Hostel and own house.

The majority of individuals were Hindus and negligible (less than 5%) were belonging to other religions in this study and hence the analysis was not done separately. The non response rate for age at masturbation was 20% (137 of 686) which is less compared to other studies (Ibtihaj S Arafat *et al.*, 1974, Moscucci, 2005). The non response to both questions by the same individual was 15% of the total respondents. Even in the developed countries the response rate this kind questions among male was observed to be 75% suggesting shyness, inhibitions sharing the information or failure to recollect the information or remaining abstinence for masturbation. The differences in socio environmental factors in those countries could be an important issue of exposure rate, disclosure of information, myths, religious practices, etc within the similar

age groups. The large number of non response rate of 25% to age at nocturnal ejaculation could be due to failure to recollect the event that has happened few years back or possible evidence of retro grade ejaculation and anorgasmia, few may be having the disorder or ejaculation and orgasm as pathological condition (Chris G. McMahon *et al.*, 2013, Hovav *et al.*, 1999). Similarly 20% of non response rate to age at masturbation could be due to disorder of penile erection, inhibited ejaculation or retrograde ejaculation, an ejaculation (Chris G. McMahon *et al.*, 2013, Moscucci, 2005) at least few individuals may have failed to recollect the event that has happened or suffering from sexual dysfunctions. The non response rate was 17.8% among urban residents compared to 23 % among rural residents individuals. The similarly the non response rate was 19% (53 of 271) among hostelites and 20% among (83 of 411) among residents at their home. There are no possible reasons for this but it could attribute to the exposure of knowledge and background and resident status. The difference between mean age at first masturbation was different among courses individuals was found to be statistically significant ( $p < 0.001$ ).

The mean age at first orgasmic experience or masturbation among male was observed to be 15.4+1.6 years (95 % CI 15.21 – 15.55). The mean age at masturbation or orgasmic experience in diploma found to be 14.5+1.4 years compared to 15.3+2.1 years among engineering, 15.2+2.0 in medical and degree courses was 15.7+1.7 years and 16.2+2.4 years among law students. The mean age at masturbation was found to be statistically significant between the residents for the hostel and home ( $p < 0.003$ ) where as such difference was observed between residents of urban and rural areas. The relationship between first nocturnal emission and masturbation was explained by Alfred Kinsey that the onset the frequency of nocturnal emission not been linked to onset and frequency of masturbation some male credit the frequent emissions do not masturbate or may be true otherwise (Kinsey Alfred C *et al.*, 1948). The first ejaculation as nocturnal emission is usually experienced 13% of males. Males experiencing the first nocturnal emission older than those experience first ejaculation through manual solitary masturbation. There is delay in nocturnal emission in case of individual's development possible through physical stimuli. The age at first masturbation as documented among men in different studies (Jenny A. Higgins *et al.*, 2010, Aksoy *et al.*, 2012, Schuster *et al.*, 1996, Shashikumar *et al.*, 2012, Smith *et al.*, 1996) are similarly to the findings on this survey. One of the online survey on 10,641 males usernet of computer in 2007 shows that those masturbated to orgasm were 12.2 years (range .17 to 21.1) (online survey 2013). 27 percent first masturbated at age 11 or younger, 28 percent while they were 12, 23 percent while they were 13 (this means 78 percent started masturbating before their 14th birthdays), 12 percent while they were 14, 6 percent while they were 15, and 2 percent while they were 16. 98 percent were masturbating before their 17th birthdays. However the age gap between nocturnal ejaculation and masturbation was narrow in this survey compared to the above mentioned studies done during the last five years.

### Conclusion

This survey highlights the experience of age at first nocturnal ejaculation and masturbation (Orgasmic experience) suggesting

the onset of sexual maturity among men as almost same. There is no much importance of education, cultural, residential status factors in the early onset of sexual maturity and the findings of this study can be generalised to the population.

### Limitations

Study on sexual behaviour is subjected to both social stigma and recall, few individuals might have under or over reported their response to the questions which is difficult to verify. Due to the social stigma attached to the sexual behaviour, there is no adequate space for exploring the factors depth in this study. The study subjects were small in number is some of the courses and the participatory response rate among engineering students could have been improved if repeated briefing was done to the participants. The educational, intelligent background and understanding of the terms used in questionnaires could have been difficult to some of the participation and left the questions unanswered deliberately rather than wrong answering on masturbation and nocturnal emission. The multi variance analysis and other tests could have been applied to study in detail with other variables but this study restricted to only the important variables.

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