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# Prevalence of Gaming Addiction among Adolescents

Shilpa Singh Rohilla<sup>1</sup>

<sup>1</sup>Research Scholar, Department of Psychology, Panjab University, Chandigarh, India.

**Abstract:** Based on the empirical analysis, present study intends to assess prevalence rate of gaming addiction among adolescents. For the purpose 350 adolescents were targeted from various schools of Chandigarh within mean age of 15.5 years. GASA by Lemmens, Valkenburg and Peter (2009) was used as a tool to identify gaming addicted adolescents.

## I. INTRODUCTION

Gaming behavior is emerged as a common habit among people. It is one of the common leisure activities among people especially among adolescents and young adults. Gaming has becoming more popular with the increase in internet accessibility. Smart phones and personal laptops are used predominantly for gaming purposes. Numerous researches have shown the prevalence of gaming habit among people. Lemmens, Valkenburg, and Peter (2009) define video game addiction as “an excessive and compulsive use of computer or video games that results in social and/or emotional problems; despite these problems, the gamer is unable to control this excessive use.” DSM-V has incorporated gaming addiction as a disorder under section three and termed as Internet Gaming Disorder- IGD (DSM-V, 2013). WHO defines gaming disorder as “a persistent or recurrent” behavior pattern of “sufficient severity to result in significant impairment in personal, family, social, educational, occupational or other important areas of functioning” (Scuti, 2017). Beta Draft also incorporated gaming disorder in 11<sup>th</sup> International Classification of Diseases. The disorder is characterized by persistent and recurrent gaming behavior which includes both digital and video gaming which can be online as well as offline mode. The recurrent behavior includes “(i) impaired control over gaming (e.g., onset, frequency, intensity, duration, termination, context); (ii) increasing priority given to gaming to the extent that gaming takes precedence over other life interests and daily activities and (iii) continuation or escalation of gaming despite the occurrence of negative consequences and the these behaviors must persist at least for twelve months in order to assign diagnosis” (ICD-11, Beta Draft, Mortality and Mortality Statistics). Numerous researches have shown the prevalence of gaming habit among people. Findings of the Annual Research conducted by Ipsos Media CT for ESA (2014) showed that overall 59% of the American citizens play videogames. 68% play games on Console, 53% play on Smartphone and 41% play on wireless device. Out of the total game players, 29% were under the age of eighteen years, 32% were between eighteen to thirty five years and 39% were above thirty six year of age. Results also showed that 52% of the game players were males and 48% were females.

Mentzoni, Brunborg, Molde, Myrseth, Skouverøe, Hetland and Pallesen (2011) conducted a nationwide study among 2,500 individuals from Norwegian National Registry and found that 53.3% participants play video games on regular basis. Prevalence of videogame addiction found to be 0.6%, problematic videogame usage emerged to be 4.1%. Findings also proved that videogame addiction was predominantly associated with male participants of young age group. Videogame addiction was significantly linked with low life satisfaction and higher anxiety and depressive symptoms.

Wittek, Finseras, Pallesen, Mentzoni, Hanss, Griffiths and Molde (2015) studied prevalence and predictors of video game addiction among a 3389 gamers selected from National Population Registry of Norway. Results showed that out of the sample 1.4% found to addicted gamers, 7.3% were problem gamers, 3.9% were ganged gamers and 87.4% were normal gamers. Male participants of younger age were ore addicted to videogames than other participants.

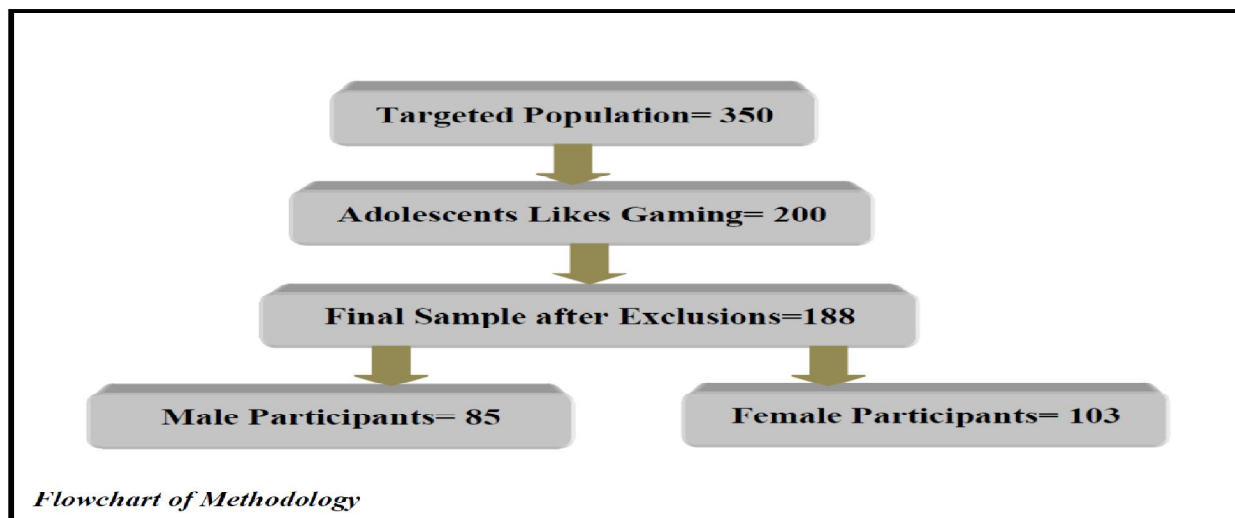
### A. Objective

Based on the above literature, present study was aimed to assess the prevalence rate of gaming addiction and gender differences on gaming addiction among adolescent students in Chandigarh.

### B. Method

For the present investigation sample comprised of 350 students of various schools mean age of 15.5 years across the Chandigarh city. Written consent was also obtained from the participants. Students were asked about whether they like videogames or not. It

was found that out of targeted population 200 like video gaming. After excluding two participants due to various reasons the final sample comprised of 188 participants.



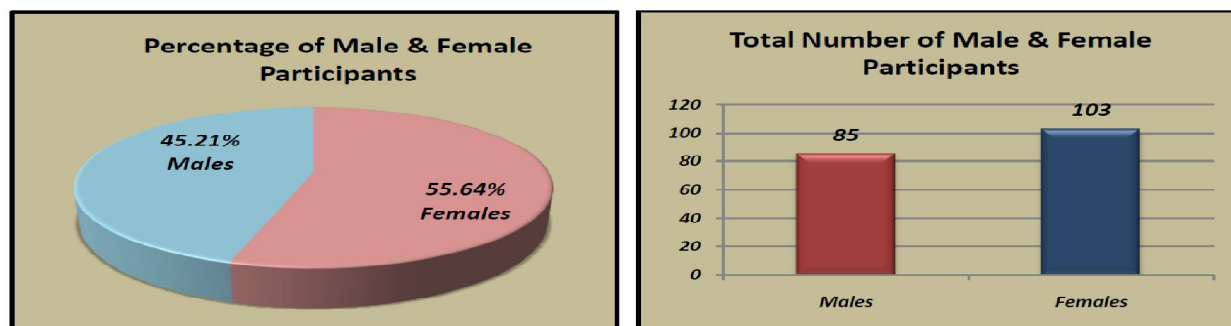
C. Tools

A semi-structured interview schedule was used to obtain detailed information about demographic profile, educational level, number of siblings, both parents working or not, device used for gaming (personal device or common device such as smart phone, laptop, desktop or computer) and type of game(online or offline) individual like more. Game Addiction Scale for Adolescents (GASA) by Lemmens, Valkenburg and Peter (2009) was used to assess the prevalence of gaming addiction among participants. GASA is a seven item and five point liker scale tool especially meant for adolescent population to assess gaming addiction. The responses range from “never” to “very often.” Individuals who scored “sometimes” or more on almost all of the statements were termed as “Monothetic gamers” means pathological gaming, those whose response were “sometimes” or more for at least half of the items (4-6items) are characterized as “Polythetic gamers” means excessive gaming. Scores less than “sometimes” were defined as normal. The scale is reliable with Cronbach alpha of .82 to .87. For the present investigation the students who match the criteria of Monothetics and Polythetics will be considered as problem gamers.

II. RESULTS & DISCUSSION

A sample of 200 adolescents was includes with mean age of 15.5 years. Two participants were excluded from the individuals due to various reasons. The final sample comprised of 188 which 103 male and 85 female participants belonging to arts, commerce and science streams. Consent was also obtained fro to participants.

Figure-1: Gender wise Proportion of Participants in Total Population



Source: Primary Field Survey, Chandigarh

Figure-1 showed proportion of male and female participants in the current study. Out of total participants 55.64% (103) were females and 45.21% (85) were males.

Table -1: Demographic Profile of the Participants: N=188 (females=103, Males=85)Mean Age=15.5

Category	Dimensions	Total	In %	Females	In %	Males	In %
Stream	Arts	76	40.43	44	57.89	32	42.11
	Commerce	59	31.38	31	53.33	28	47.45
	Science	53	28.19	28	52.83	25	74.16
Single child/Siblings	Single Child	14	07.44	6	42.86	8	57.14
	With Siblings	174	92.55	97	55.75	77	44.25
Parental Working Status	Both Working	93	49.47	48	51.61	45	48.39
	Only One Working	95	50.53	55	57.89	40	42.10
Device Preferred For Gaming	Personal Smart Phone	97	51.60	70	72.16	27	27.84
	Personal Laptop	79	42.02	28	35.44	51	64.56
	Common Device	12	06.38	4	33.33	8	66.66
Desirable Mode for Gaming	Online Mode	67	35.64	16	23.88	51	76.12
	Offline Mode	121	64.36	87	71.90	34	28.10

Source: Semi-structured Interview

Table-1 showed the demographic details of the participants. Through semi-structured interview it was observed that out of total sample 40.43% (76) participant were from arts, 31.38% (59) individuals were from commerce stream and 28.19% (53) individuals were from science streams. Among arts students 44 were females (57.89%) and 32 were males (42.11%). 53.33% (31) and 47.45% (28) were males and females in commerce stream. Among science students 52.83% (28) were males and 74.16% (25) were females. When asked about siblings it was found that 7.44% (14) of total sample were single child and 92.55% (174) have siblings. Out of total number of single child 42.86% were females and 57.14% were males. 92.55% of the total population has siblings which includes 55.75% females and 44.25% males.

Participants were asked about working status of their parents. It was observed that out of 188 participants 49.47% were those whose both parents were working which includes 48 females and 45 males. 50.53% of total participants were those whose only one parent was working which comprised of 55 females and 40 males.

Students were asked about the device they use for gaming. It was observed that 70 females and 27 males use personal Smartphone, 28 females and 51 females use personal laptop, 4 females and 8 males use common device for gaming. In total 51.6%, 42.02% and 6.38% of the total population use personal Smartphone, Personal laptop and common device respectively for gaming.

Participants were asked about desirable mode of gaming (online/offline). It was found that 67 participants like online gaming and 121 like offline gaming. 23.88% females and 76.12% males like online gaming and 71.9% females and 28.10% males like offline gaming.

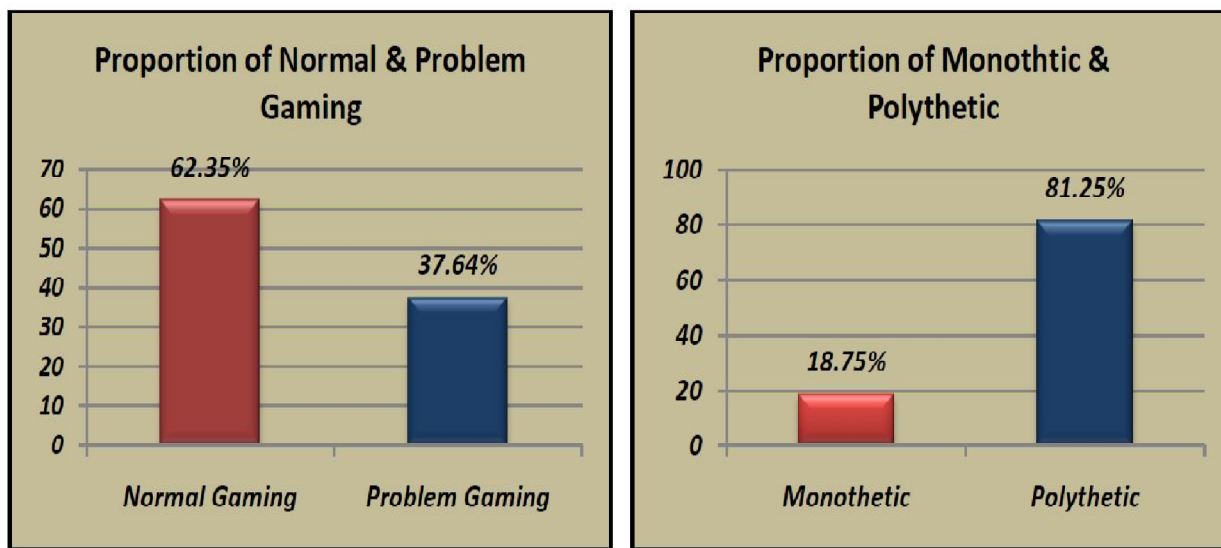
Table-2: Prevalence Rate of Gaming Addiction

Category	Total Population	in%	Normal Gamers	in%	Problem Gamers	in%	Mono-thetic	%in	Poly-thetic	%in
Population of Males	85	45.21	53	62.35	32	37.64	6	18.75	26	81.25
Population of Females	103	54.79	92	89.32	11	10.68	1	9.09	10	90.90
Both Parent Working	93	49.47	64	68.82	29	31.18	11	37.93	18	62.07
One Parent Working	95	50.53	66	69.47	29	30.53	6	20.69	23	79.31
Single Child	14	7.44	7	50.00	7	50.00	4	57.14	3	42.86
With Sibling	174	92.55	138	79.31	36	20.68	11	30.56	25	69.44

Source: Findings Obtained from GASA

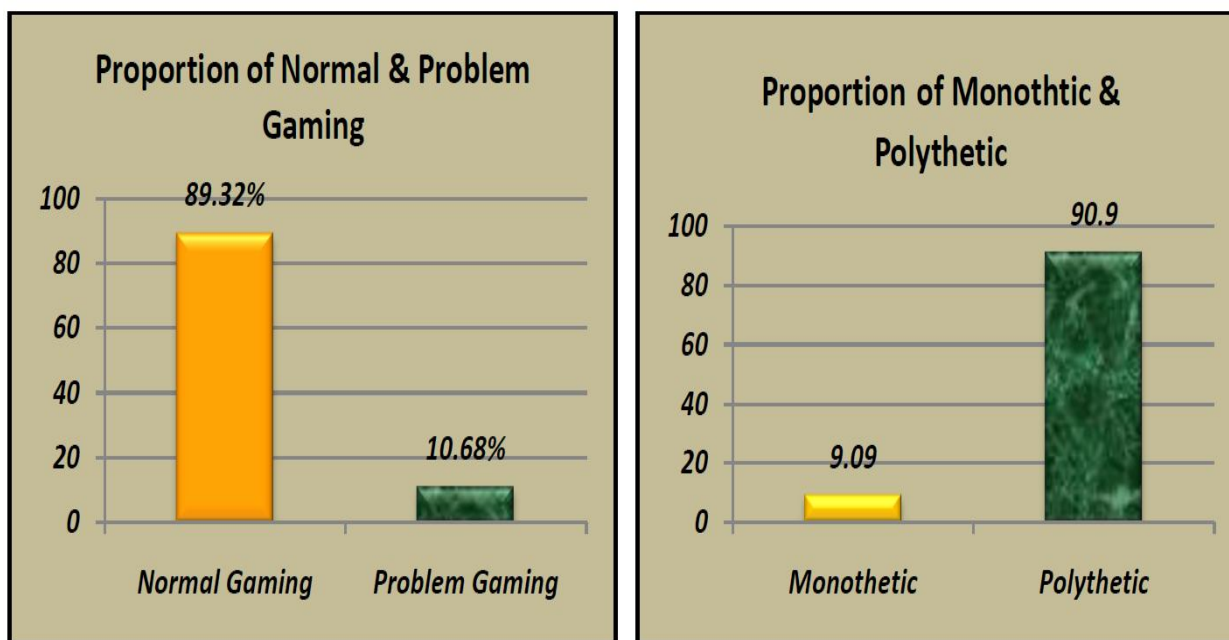
Table-2. Is showing frequency of normal gamers, problem gamers, monothetic and polythetic gamers on the basis of score obtained from “Game Addiction Scale for Adolescents” (GASA) among male participants, female participants, among those whose both parents are working, those whose only one parent is working, those who are single child and those who have siblings. Score Findings of the study showed that out of the total male participants 62.35% were normal gamers and 37.64% were problem gamers (Fig.2). Among problem gamers 6 found to be monothetic and 26 found to be polythetic (Fig.3).

Figure-2.Figure-3.



Among females out of 103 adolescents 89.32% were identified as normal games, and 10.68% as problem gamers (Fig.4). Among total problem gamers only one found to be monothetic and 10 found to be polythetic (Fig.5).

Figure-4.Figure-5.



Out of total participants (93) whose both parents were working it was observed that 68.82% were normal gamers and 31.18% were problem gamers (Fig.6). Among problem gamers 11 were monothetic and 18 were polythetic (Fig.7).

Figure-6.

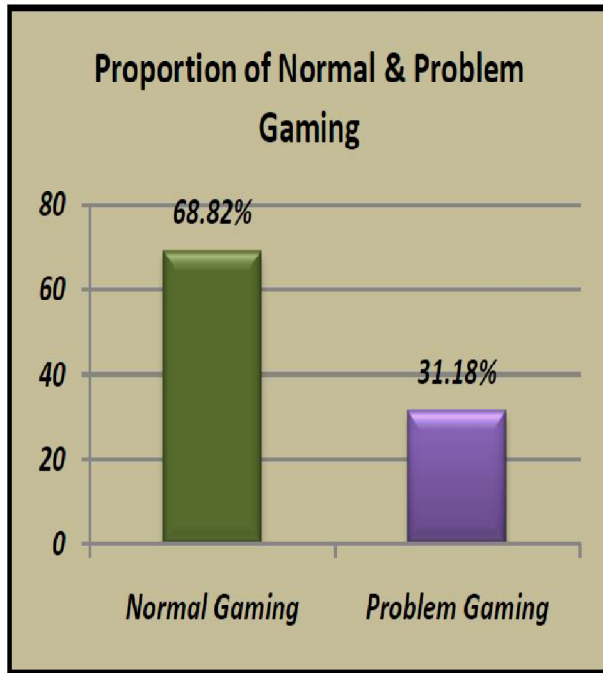
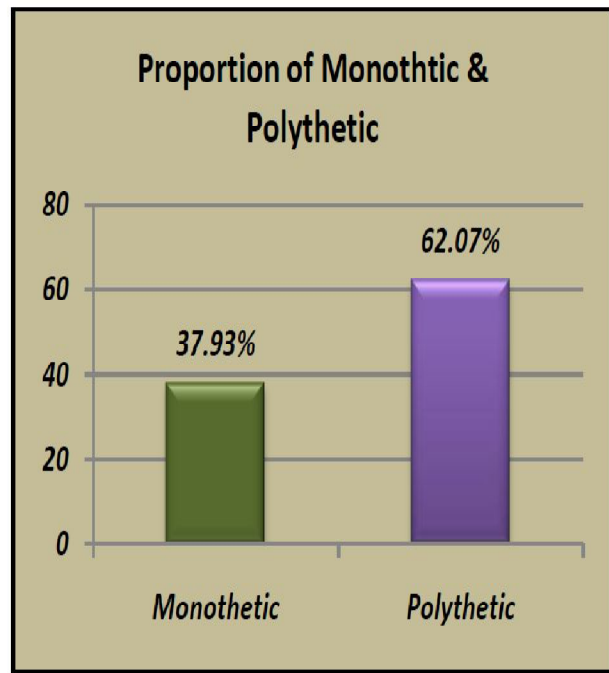


Figure-7



Among those whose only one parent was working (95) it was found that 66 were normal gamers and 29 were problem gamers (Fig.8). Out of the all problem gamers 20.69% fell under the criteria of monothetic and 79.31% fell under the criteria of polythetic (Fig.9).

Figure-8.

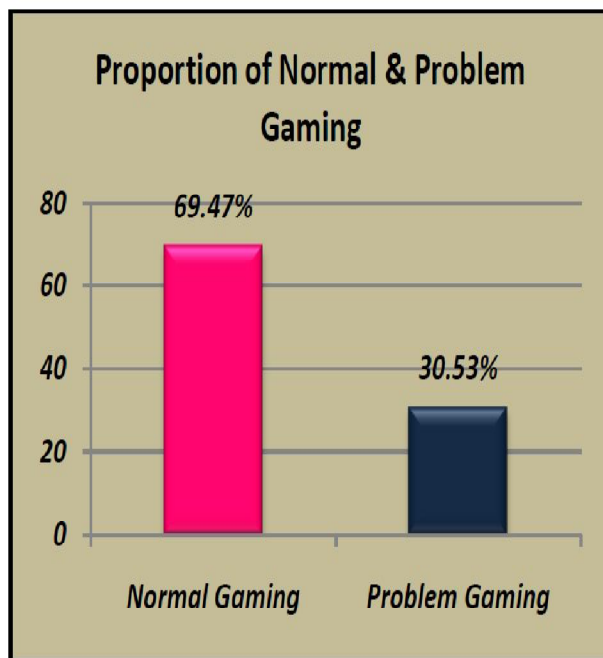
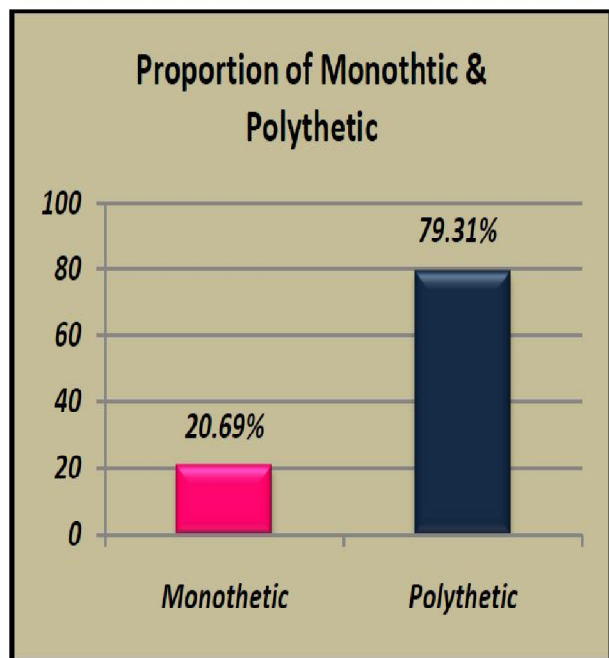


Figure-9.



Findings of the investigation showed that there were 14 single child and 174 were those having siblings. Among single child equal frequency of normal gamers and problem gamers were found i.e. 50% (Fig.10). Among problem gamers 57.14% found to be monothetic and 42.86% fell under the category of polythetics (Fig.11).

Figure-10.

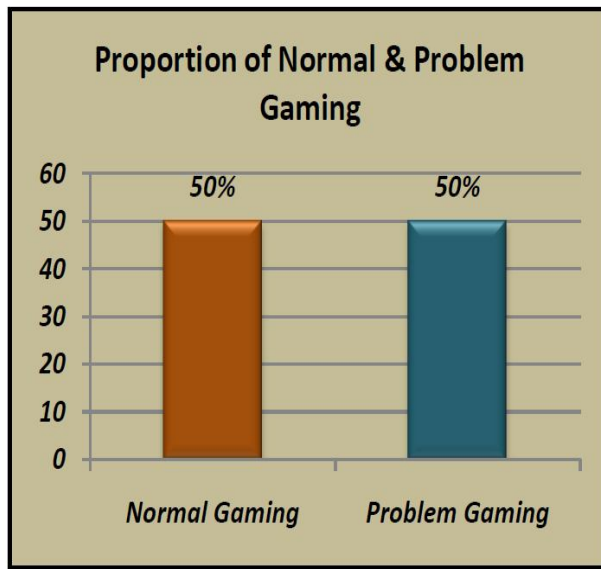
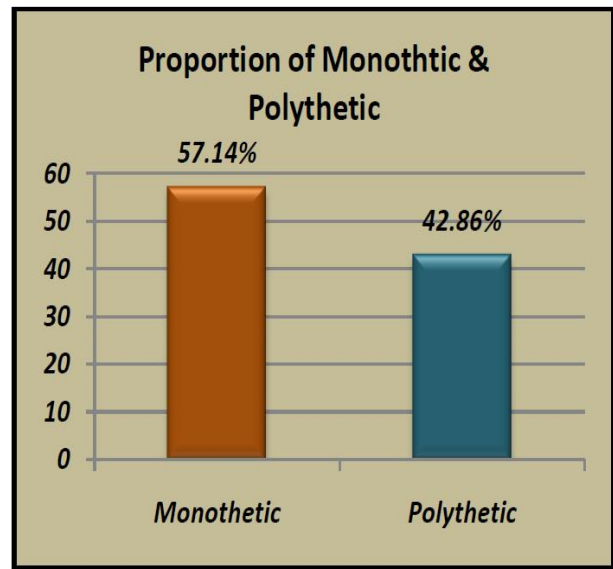


Figure-11.



Out of total participants having siblings (174) it was observed that 79.31% were normal gamers and 20.68% were problem gamers (Fig.12). Among the problem gamers 11 participants identified as monothetic and 25 as polythetic (Fig.13).

Figure-12.

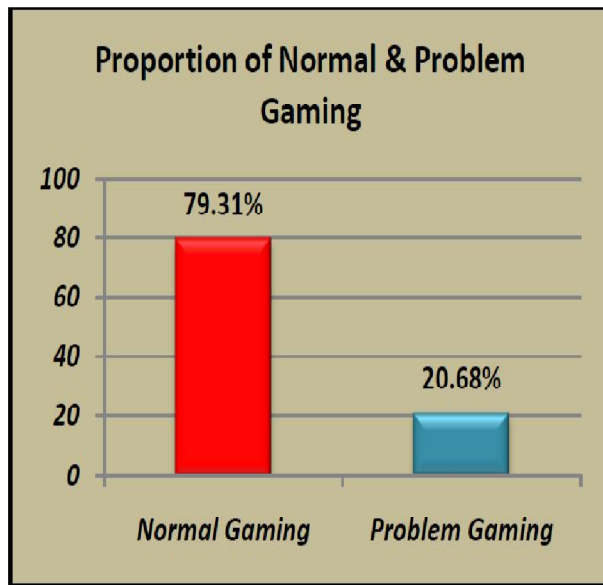
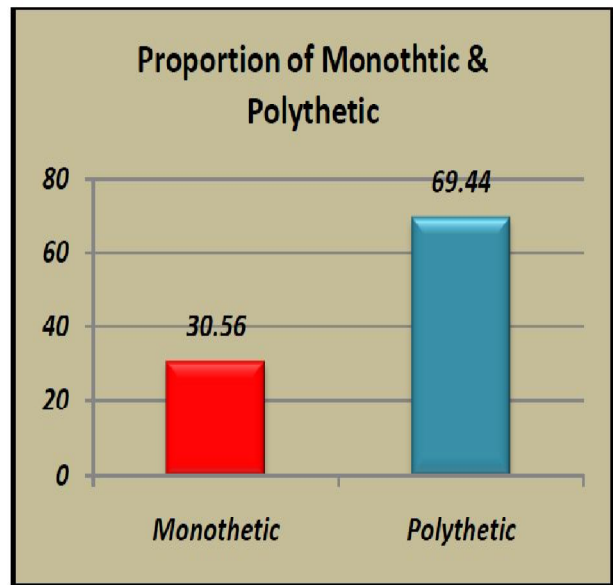


Figure-13.



### III. CONCLUSION

From the present investigation it was concluded that overall more of the females were indulge in normal gaming than males. Males were approximately twice of females in monothetic criteria and approximately ten percent more females were into excessive gaming than pathological gaming. It shows more males were into pathological gaming than females. It was also found that adolescents also vary in gaming habit according to the working status of the parents. Participants whose both parents were working were approximately seventeen percent more in frequency that of those whose only one parent was working. It shows those individuals whose both parents working were more into pathological gaming. More of the participants with siblings were normal than single child and frequency of pathological gaming was approximately twenty seven percent more among single those of single child. There

are many more factors which creates favorable condition for an individual to become gaming addict. In order to prevent gaming addiction appropriate steps should be taken.

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