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ORIGINAL RESEARCH

An exploratory study to assess the prevalence and effects of excess use of ear phones and music devices among younger adults in district Fathegarh Sahib, Punjab

[1]Lovesampuranjot Kaur, [2]Bhupinder Kaur

[1]Professor, [2]Assistant Professor, Faculty of Nursing, Desh Bhagat University, Mandi Gobindgarh, Punjab, India

Correspondence:
Lovesampuranjot Kaur
Professor, Faculty of Nursing, Desh Bhagat University, Mandi Gobindgarh, Punjab, India

Abstract

Problem statement: An exploratory study to assess the prevalence and effects of excess use of ear phones and music devices among younger adults in district Fathegarh sahib, Punjab.

Objectives:

1. To assess the prevalence of excess use of earphones and music devices among younger adults.
2. To assess the effects of excess use of earphones and music devices among younger adults.
3. To find out the association between excess use of earphones and music devices with their selected demographic variables of district Fathegarh sahib, Punjab.

Research methodology: In the study, an exploratory research design was adopted for the study. Non- probability purposive sampling technique was used to select 200 college and university students. The population of present study was younger adults of colleges and universities of district Fathegarh Sahib. To assess the prevalence, pattern and effects of excess use of earphones and other musical devices by self- structured questionnaire.

Data collection process: Data was collected through demographic data sheet for assessment of demographic variable. Such as age, gender, education level of student, stream of study, year of study, religion, relationship status, area of residence, family income. A self-structured questionnaire was to assess the pattern and prevalence of excess use of earphones and other musical devices among younger adults. A self-structured checklist was used to assess the effect of earphones and also self-structured likert scale to assess the prevalence and pattern of using earphones and other musical devices.

Results: Younger adults had severe effect on hearing (1.5%), moderate (34.0%) and mild (64.5%). Hence it is concluded that majority of younger adults had mild effect on their hearing.

Interpretation and conclusion: The result of the study showed that it was conducted that majority of younger adults had mild effect on their hearing of district Fathegarh Sahib, Punjab.

Keywords- Prevalence, Music devices and Younger adults

Introduction

Worldwide, generally because of new developments and advancement of science and technology with marked dispersal of technological information the music industry is also developed. As observed by the researchers listening to music, videos and playing games on personal players via the ear/headphones has become a common practice amongst the youth

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

though seemingly switching over to adults and even some elderly people. The use of PMP (personal musical player) has been shown to be popular among teenagers and young adults. Furthermore it has also been shown that high-school students are most likely to listen to their PMPs for longer periods at higher settings when compared with other adults. Knowledge with the free-field equivalent sound pressure levels (SPLs) measured at a maximum volume control setting of PMP ranged from 91 to 125 dB(decibels) and the fear that the use of these devices may be dangerous to hearing health is justified.

On the other side in society today, people use earphones not only for listening to music, but also for eliminating the surrounding noise in the street, bus, taxi or other transportation systems all of which hurt ears and cause hearing loss. Hearing impairments or hearing loss may not be recognized for many years; so, treatment and intervention may be difficult when it is detected. The existence of chargeable and durable batteries is a main reason for listening to music using portable music player devices. Most of the young adults listen unduly from portable music player devices and this issue can cause ear and hearing problems. The main problem is that usually adolescents listen to music with loud sound.

Asghar Mohammadpoorasl, Mohammad Hajizadeh, Soudabeh Marin et al. (2018) opined that 60.2% of the students report the history of hearing loss and hearing impairment and 86.4% of the participants report using an earphones in the past. Most of the participants listen to music on their cellphones and 89.6% of them uses headphones and earphones for listening to music. The results indicated that 51.32% those who used earphones used ear bud-style earphones, 42.2% used supra-aural earphones and 6.5% used headphones. Students who used earphones, those who used earphones more frequently during the week, and those who used earphones for more years had higher hearing loss scores compared to other students.

Similarly Asha Shaji in INDIA notified thathigh frequency hearing loss, a common causality of excessive noise exposure nearly doubled, from 10.1% in 1985 to 19.2% in 2008, and in 2008 personal music players use rose fourfold, from 18.3% to 76.4% .Between 2001 and 2008 personal music player use rose fourfold, from 18.3 percent to 76.4 percent. High-frequency hearing loss is increased from 12.4% to 19.2 % during these years, while the proportion of girls reporting tinnitus — ringing, buzzing or hissing in the ears — nearly tripled, from 4.6 % to 12.5%.

Harshitha S and Azeem Ayesha Siddiqua (2017) conducted a survey on prevalence and effect of earphone usage among adolescents. Ex post facto research design with convenient sampling technique was used. This study was conducted on 84 men and 83 women between the age group of 15 to 24 years. A self-structured questionnaire was framed consisting of 9 questions. The responses obtained from the samples were analyzed and percentages were then calculated and the results were also presented in the pie chart and bar graphs and interpretations were made corresponding to the results that were obtained.

Asghar Mohammadpoorasl , Mohammad Hajizadeh[2] Soudabeh Marinet al(2015) Conducted a cross sectional study on Prevalence and Pattern of Using Headphones and Its Relationship with Hearing Loss among Students. The sample was comprised of 890 students were randomly selected using a proportional cluster sampling method. The data was collected by self-administered questionnaire. The study showed that 60.2% (95% confidence interval (CI): 56.9 - 66.4) of the students reported a history of hearing loss and hearing impairment and 86.4% (95% CI: 84.0 - 88.5) of the participants reported using an earphone in the past. Most of the participants listened to music on their cell phones (81.7%) and 89.6% of them used headphones for listening to music. The results indicated that 51.3% of those who used earphones used ear bud-style earphones, 42.2% used supra-aural earphones, and 6.5% used headphones. Students who used earphones, those who used earphones more frequently during the week, and those who used earphones for more years had higher hearing loss scores compared to other students. Students have a risky pattern of using personal listening devices.

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

Need of the study

Today, with technological advances, it is easy to find youths and adults using electronic devices like earphones, headphones, home theater and disc jockey. Due to the convenience of listening to music anytime and anywhere in loud volume more than 85 db. However, not everyone knows that excessive use of these devices may cause irreversible damage to hearing.

According to WHO around 466 million people worldwide have disabling hearing loss (1), and 34 million of these are children. It is estimated that by 2050 over 900 million people will have disabling hearing loss. Hearing loss may result from genetic causes, complications at birth, certain infectious diseases, chronic ear infections, the use of particular drugs, exposure to excessive noise, and ageing.60% of childhood hearing loss is due to preventable causes.1.1 billion young people (aged between 12–35 years) are at risk of hearing loss due to exposure to noise in recreational settings.

Mehdi Wandadi1, Vahid Rashedi2 et al (2014)conducted a cross sectional descriptive study on Prevalence of Using Personal Music Player and Listening Habits in Iranian Medical Students.A sample was comprised of 250 students. A self-structured questionnaire was used to check prevalence. A study revealed that Overall, 91.2% of students were found to use headphones, 10.4% of which used headphones more than 1 hour a day, and 52% of them used volume setting higher than three fourths of the output capacity. The most common music player was a mobile phone, and the most common headphone type was the inserted type. Tinnitus was reported among 34.4% of users following the use of personal music player. The study concluded that the use of personal music players amongst students was found to be very high in the study setting.

Hossein Ansari, Asghar Mohammadpoorasl et al 2013)conducted a cross sectional study on Pattern of Use of Earphone and Music Player Devices among Iranian Adolescentsin the northeast of Iran. The study comprised of 2,359 high school students were randomly selected. The data was collected by self-administered multiple-choice questionnaire. The result showed that 44.3% [confidence interval (CI) 95%: 38.3-50.3] of the respondents had a history of hearing problems that was significantly different between males and females (42.2% of males and 47% of females, *p*: 0.02). Notably, 36.8% of the participants stated that they listened to music without any rest or stop. Almost 49.6% (CI 95%: 44.4-54.4) of the students reported listening to ‘somewhat loud’ (gain setting at 50%) or ‘very loud’ (gain setting more than 50%) volume level of music. In terms of the kind of earphones, 17.1% of the participants used headphones, 34.8% used ear bud-style headphones, 32.3% used supra-aural headphones, and 15.8% of them did not use any type of earphones. The study concluded that Students have risky patterns of using earphones and music-listening devices. Planning educational programs in this domain for adolescents especially in high schools is necessary.

Hence, we saw that nowadays young adults who are studying in colleges are found of music and they have seen by us while listening music during traveling, walking and even during study time.We also saw in the college buses, private buses, colleges and universities and in public places. There are many road side accidents happen because of wearing headphones during driving and walking beside or on the road because they are not able to listen the outside horns of vehicles who are asking for the side and we also saw that people are spending most of the time on their personal music devices to listen music that’s why they are getting withdrawal from their families and friends. They are also facing the problems of ear like hearing loss, hearing impairment and many more. That’s why we think that we have to check the prevalence rate, pattern and effect of excessive use of earphones and other musical devices young adults.

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

Aims

The present study aimed to assess the prevalence, pattern and effects of excess use of earphones and other musical devices among younger adults studying in private colleges and universities in district Fathegarh sahib.

Problem statement

An exploratory study to assess the prevalence and effects of excess use of ear phones and music devices among younger adults in district Fathegarh sahib, Punjab.

Objectives

1. To assess the prevalence of excess use of earphones and music devices among younger adults.
2. To assess the effects of excess use of earphones and music devices among younger adults.
3. To find out the association between excess use of earphones and music devices with their selected demographic variables of district Fathegarh sahib, Punjab.

Research design

A Non experimental research design (exploratory design) was used to assess the prevalence, pattern and effects regarding excess use of earphones and music devices among degree students state of Punjab.

Research setting

This research study was conducted at degree colleges universities in district Fathegarh sahib in state of Punjab.

Variables

Independent variables

An independent variables is that which is believed to cause or influence the dependent variables, In this study, the independent variables refer to degree students.

Dependent variables

Dependent variable is the responses due to the effect of the independent variables, which researcher want to predicts or explain.

In this study, dependent variable refers to excessive use of earphones and music devices.

Target population

Population of the study consisted of younger adults of Age group 22-28 years studying in degree colleges of state Punjab. Once the eligibility of sample was established, written informed consent was obtained from the younger Adults.

Sample and sampling techniques

The sample was drawn by using Non-Probability purposive sampling technique.

Sample size

The sample of study comprised of 100 Younger Adults to assess the prevalence, pattern and effects of excess use of earphones and music devices at degree college, Punjab.

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

Development and description of tool

Description of the tool

The study aimed to assess the prevalence, pattern and effects of excess use of earphones and music devices among degree students of state Punjab

A. Development of the tool-Data collection tools are the devices that a researcher uses to collect data. A search for literature was made for the purpose of locating appropriate tools.

The present study aimed to assess the prevalence, pattern and effects of excess use of earphones and other musical devices among younger adults studying in private colleges and universities in district Fathegarh sahib.

The following data tools were used in order to obtain data:

- A structured demographic sheet
- A self-structured questionnaire
- Checklist
- A likert scale

The self-structured questionnaire was used to assess the prevalence, pattern and effects of excess use of earphones and other musical devices among younger adults.

B. Description of the tool

The study aimed to assess the prevalence, pattern and effects of excess use of earphones and other musical devices among younger adults of age group 20 to 28 years studying in private colleges and universities in district Fatehgarh sahib.

The tool comprises of three sections.

Tool 1 Structured demographic sheet

Demographic data was developed for the purpose of collecting background information of the sample.

This section contains questions on demographic information i.e. age, gender, education of the student, stream of study, year of study, religion, relationship status, area of residence, family income. The items in this tool had no scoring as it reflects factual information.

Tool 2 Self structured questionnaire

A questionnaire was formulated to assess the prevalence of excess use of earphones and other musical devices of younger adults. It contains 11 questions to be asked to the younger adults of private colleges and universities of district Fathegarh sahib of age group 20 to 28 years through self-structured questionnaire.

Tool 3 Self structured checklist

A questionnaire was formulated to assess the effect of excess use of earphones and other musical devices of younger adults.

It contains 20 questions to be asked to the younger adults of private colleges and universities of district Fathegarh sahib of age group 20 to 28 years through self-structured questionnaire.

Tool 4 Self structured likert scale

A questionnaire was formulated to assess the pattern and prevalence of excess use of earphones and other musical devices of younger adults. It contains 15 questions to be asked to the younger adults of private colleges and universities of district fatehgarh sahib of age group 20 to 28 years through self-structured questionnaire

Delimitation of the study

The study is delimited to only those younger adults:

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

- Aged between 20 to 28 years of district Fathegarh sahib, Punjab.
- Younger adults who are available at the time of data collection.
- Those who suffering from any physical and psychological problems.

Analysis and interpretation

Organization of study findings

Section A: - Description of Demographic data and Assessment of pattern and prevalence of excess use of earphones and other musical devices of younger adults of district Fathegarh Sahib.

Section B: -Assessment the effect of excess use of earphones and other musical devices of younger adults of district Fathegarh Sahib.

Section C: -Association between excess use of earphones and music devices with their selected demographic variables.

Section A: Description of demographic data

The section describes the demographic characteristics of younger adults of private colleges and universities of district Fathegarh Sahib under the study. The demographic characteristics are described in terms of age, gender, education of the student, stream of study, year of study, religion, relationship status, area of residence, family income.

Frequency and percentage distribution of Demographic characteristics are computed for describing the sample characteristics. These findings are presented in table 1.

Table No 1: Frequency and percentage Distribution of Demographic characteristics of younger adults of private colleges and universities

N=200

Variables	Opts	Percentage (%)	Frequency(f)
Age	20-21 years	54.5%	109
	22-23 years	16.0%	32
	24-25 years	24.5%	49
	26 & above	5.0%	10
Gender	Male	39.5%	79
	Female	60.5%	121
Education level of student	Diploma Level	4.0%	8
	Graduation	69.5%	139
	Post-Graduation	7.5%	15
	Others	19.0%	38
Stream of study	Medical	12.0%	24
	Non – medical	5.5%	11
	Humanities	30.0%	60
	Commerce	28.5%	57
	Other	24.0%	48
Year of study	1st year	33.5%	67
	2nd year	16.5%	33
	3rd year	40.5%	81
	4th year	2.5%	5
	5th year	7.0%	14
Religion	Hindu	32.0%	64
	Muslim	1.5%	3
	Sikh	63.0%	126
	Others	3.5%	7

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

Relationship status	Single	70.5%	141
	Committed	12.0%	24
	Broken up	7.5%	15
	Married	1.5%	3
	Unmarried	8.5%	17
Area of residence	Urban	50.5%	101
	Rural	49.5%	99
Family income	10,000 – 50,000	45.5%	91
	51,000 – 100,000	26.0%	52
	101,000 – 200,000	17.0%	34
	201,000 – 500,000	11.5%	23

Table 1 depicted the frequency and percentage distribution of the younger adults. According to age it was found that maximum younger adults were in age group 20 to 21 years (54.5%) followed by 24 to 25 years(24.5%) and 22 to 23 years (16.0%) and 26 & above(5.0%). As per the gender there were maximum number of females (60.5%) and males (39.5%). Maximum younger adults studying graduation (69.5%) followed by others (19.0%), post-graduation (7.5%) and Diploma level (4.0%). Most of the younger adults doing Humanities (30.0%) followed by Commerce (28.5%), others (24.0%),Medical (12.0%) and Non-medical (5.5%). The year of studying of younger adults varying in 3rd year (40.5%) followed by 1st year (33.5%), 2nd year (16.5%) , 5th year (7.0%) and 4th year (2.5%). Maximum younger adults fall in Sikh religion (63.0%) followed by Hindu religion (32.0%), others (3.5%) and Muslim religion (1.5%). Mostly younger adults are single (70.5%) , committed (12.0%), Unmarried (8.5%), Broken up (7.5%) and Married (1.5%). Most of the younger adults belong to urban area (50.5%) followed by rural area (49.5%). Maximum no. of younger adults was from family having monthly income 10,000 to 50,000(45.5%), followed by 51,000 to 1,00,000 (26.0%) , 101,000 to 2,00,000(17.0%) and 201,000 to 5,00,000(11.5%).

Hence it was concluded that majority of younger adults were doing Graduation. The majority of younger adults are single and mostly belong to urban area. Whereas most of the younger adults were from the Family having monthly income from 10,000 to 50,000.

Section B: Assessment the effect of excess use of earphones and other musical devices of younger adults

This section describes the effect of excess use of earphones and other musical devices among younger adults of district Fathegarh sahib.

Frequency and percentage distribution of criteria measurement to assess the effect of excess use of earphones and other musical devices younger adults is computed for describing sample characteristics. The findings are present in table 3.

Table No: Table Showing Level of Scores

Criteria measure of effect of excess use score		
Level of Scores N= 200	**Percentage**	**Frequency**
SEVERE.(15-20)	1.5%	3
MODERATE.(8-14)	34.0%	68
MILD.(0-7)	64.5%	129

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

Section C: Association between excess use of earphones and music devices with their selected demographic variables

This section deals with the findings related to association between excess use of earphone sand other musical devices with selected demographic variables. The Chi Square test was used to determine the association between the excess use of earphones and music devices with selected demographic variables.

The Chi Square values showing the association between excess use of earphones and musical devices with their selected demographic variables is given in table 4.

Objective: To find out the Association between excess use of earphones and music devices with their selected demographic variables.

Demographic Data		**Levels (N=200)**			**Association with EFFECT OF EXCESS USE Score**				
Variables	**Opts**	**SEVERE**	**MODERATE**	**MILD**	**Chi Test**	**P Value**	**df**	**Table Value**	**Result**
AGE	20-21 years	2	39	68	3.967	0.681	6	12.592	Not Significant
	22-23 years	1	13	18					
	24-25 years	0	13	36					
	26 & above	0	3	7					
GENDER	Male	3	25	51	4.808	0.090	2	5.991	Not Significant
	Female	0	43	78					
EDUCATION LEVEL OF STUDENT	Diploma Level	0	4	4	3.462	0.749	6	12.592	Not Significant
	Graduation	3	45	91					
	Post-Graduation	0	7	8					
	Others	0	12	26					
STREAM OF STUDY	Medical	0	7	17	7.411	0.493	8	15.507	Not Significant
	Non – medical	0	2	9					
	Humanities	0	25	35					
	Commerce	2	21	34					
	Other	1	13	34					
YEAR OF STUDY	1st year	1	23	43	5.306	0.724	8	15.507	Not Significant
	2nd year	1	12	20					
	3rd year	1	26	54					
	4th year	0	0	5					
	5th year	0	7	7					

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

RELIGION	Hindu	1	21	42	6.312	0.389	6	12.592	Not Significant
	Muslim	0	3	0					
	Sikh	2	41	83					
	Others	0	3	4					
RELATIONSHIP STATUS	Single	2	50	89	4.035	0.854	8	15.507	Not Significant
	Committed	0	7	17					
	Broken up	1	5	9					
	Married	0	1	2					
	Unmarried	0	5	12					
AREA OF RESIDENCE	Urban	0	34	67	3.174	0.205	2	5.991	Not Significant
	Rural	3	34	62					
FAMILY INCOME	10,000 – 50,000	1	33	57	7.433	0.283	6	12.592	Not Significant
	51,000 – 100,000	2	21	29					
	101,000 – 200,000	0	7	27					
	201,000 – 500,000	0	7	16					

Table shows that the association between the level of score and socio demographic variable. Based on the 3rd objectives used to Chi-square test used to associate the level of knowledge and selected demographic variables. There is no significance association between the level of scores and other demographic variables .The calculated chi-square values were less than the table value at the 0.05 level of significance

Table No: Frequency Distribution of Demographic variables.

N=200

Variables	Opts	Percentage (%)	Frequency(f)
Age	20-21 years	54.5%	109
	22-23 years	16.0%	32
	24-25 years	24.5%	49
	26 & above	5.0%	10
Gender	Male	39.5%	79
	Female	60.5%	121
Education level of student	Diploma Level	4.0%	8
	Graduation	69.5%	139
	Post-Graduation	7.5%	15
	Others	19.0%	38
Stream of study	Medical	12.0%	24
	Non – medical	5.5%	11
	Humanities	30.0%	60

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

	Commerce	28.5%	57
	Other	24.0%	48
Year of study	1st year	33.5%	67
	2nd year	16.5%	33
	3rd year	40.5%	81
	4th year	2.5%	5
	5th year	7.0%	14
Religion	Hindu	32.0%	64
	Muslim	1.5%	3
	Sikh	63.0%	126
	Others	3.5%	7
Relationship status	Single	70.5%	141
	Committed	12.0%	24
	Broken up	7.5%	15
	Married	1.5%	3
	Unmarried	8.5%	17
Area of residence	Urban	50.5%	101
	Rural	49.5%	99
Family income	10,000 – 50,000	45.5%	91
	51,000 – 100,000	26.0%	52
	101,000 – 200,000	17.0%	34
	201,000 – 500,000	11.5%	23

Variables	Opts	Percentage(%)	Frequency(f)
Do you use personal musical devices to listen music?	Daily	35%	70
	Casually	8%	15
	Sometimes	48%	96
	Occasionally	5%	9
	Never	5%	10
What you use as personal musical devices most of the time?	Earphone	56%	112
	Headphones	19%	38
	Home theater / speaker	18%	35
	Amplifier / disc jockey	2%	4
	Others	6%	11
How many times you use to listen music per day?	½ an hour – 1 hour	62%	124
	1 hour – 2 hours	20%	39
	2 hour – 3 hours	13%	25
	3 hour – 5 hours	4%	7
	5 hours – 10 hours	3%	5
How many days you use to listen music in week?	1 – 2 days	33%	66
	2 – 3 days	19%	37
	3 – 4 days	13%	25
	4 – 5 days	14%	27
	Whole week	23%	45

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

Which type of music you use to listen?	Rock	26%	52
	Rap	11%	21
	Pop/Top 40	21%	41
	Classical	20%	40
	Other	23%	46
When you use to listen music?	While traveling	54%	108
	While studying	6%	11
	While sleeping	18%	36
	While playing/exercising in gym	9%	18
	While walking/ running	14%	27
What device you use on which you listen music?	Mobile	83%	166
	Television	5%	10
	Computer/ laptop	7%	13
	Radio	1%	2
	Other	5%	9
Where you use to listen music?	At home	52%	104
	At college	5%	9
	At bus	22%	43
	In car	11%	22
	Others	11%	22
At which volume level you use to listen music?	50%	28%	56
	60%	20%	40
	70%	23%	46
	80%	13%	26
	100%	16%	32
At which volume level you feel is the beginning point for “too loud” that irritate your ears?	75%	29%	57
	80%	18%	36
	85%	17%	33
	95%	14%	27
	100%	24%	47
When you are not using speakers which kind of earphones you use to listen music?	Earphones sit in the outer ear	54%	108
	Earphones over the ear	9%	18
	Earphone extend into the deeper ear	18%	36
	Noise cancelling earphones	7%	13
	Others	13%	**25**

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

DOMAIN – A ENTERTAINMENT VANUE	Never(%)	Daily(%)	Once a week(%)	Once a month(%)	Once a every 6 months(%)	Once a every year(%)	Never(f)	Daily(f)	Once a week(f)	Once a month(f)	Once a every 6 months(f)	Once a every year(f)
Have you ever go to the Cinema / movie theatre?	22.0 %	2.5%	10.0 %	32.0 %	19.5 %	14.0 %	44	5	20	64	39	28
When you use to prefer to go to live music performance – small venue (e.g., hall or performance room)?	43.5 %	6.5%	4.5%	6.5%	18.0 %	21.0 %	87	13	9	13	36	42
How often you go to a live music performance – large venue (e.g., entertainment center, stadium etc.)	50.0 %	5.0%	7.0%	9.5%	11.0 %	17.5 %	100	10	14	19	22	35
Have you ever go to a venue playing recorded music (e.g., DJ, dance party or similar, school dances)	36.5 %	5.0%	6.5%	20.0 %	18.5 %	13.5 %	73	10	13	40	37	27
Have you ever go to a one-day outdoor music festival (e.g., Big Day Out)	40.0 %	4.5%	6.0%	13.0 %	15.5 %	21.0 %	80	9	12	26	31	42
How often you go to a games/video arcade (e.g., Time zone etc.)	50.5 %	9.0%	13.0 %	6.5%	10.5 %	10.5 %	101	18	26	13	21	21
Have you ever watch live sports (e.g., football and cricket at stadium)	54.5 %	10.5 %	9.5%	5.0%	7.0%	13.5 %	109	21	19	10	14	27

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

How often you go to pub/club with music playing (band, Jukebox)	53.0 %	7.0%	8.5%	7.0%	13.0 %	11.5 %	10 6	14	17	14	26	23
How often you go to marriage and dance on loud music on DJ	33.0 %	9.0%	7.5%	15.0 %	7.5%	28.0 %	66	18	15	30	15	56

Figure No: Showing Item wise analysis

DOMAIN – B ENTERTAINMENT VANUE	Never(%)	1-2 hours(%)	3–4 hours(%)	5–6 hours(%)	7–8 hours(%)	9-10 hours(%)	Never(f)	1-2 hours(f)	3–4 hours(f)	5–6 hours(f)	7–8 hours(f)	9-10 hours(f)
How many hours you use the earphones which sit in outer ear?	31.0%	58.5%	6.5%	1.5%	1.5%	1.0%	62	117	13	3	3	2
How often you use the earphones which extend into the ear canal?	56.5%	28.0%	10.0%	3.0%	1.0%	1.5%	113	56	20	6	2	3
Have you ever use noise cancelling earphones?	68.5%	24.5%	3.0%	2.5%	1.0%	0.5%	137	49	6	5	2	1
Do you prefer to listen to music on Home theater at your home?	42.5%	40.0%	12.5%	2.5%	2.0%	0.5%	85	80	25	5	4	1
How many hours you spend to listen music on Speakers?	31.5%	51.5%	11.5%	3.0%	0.5%	2.0%	63	103	23	6	1	4
How many hours you use to listen music on Amplifier in your car/home?	38.0%	45.0%	11.5%	2.0%	0.5%	3.0%	76	90	23	4	1	6

Descriptive score according to Demographic variables

Variables	Opts	Mean%	Mean	SD	N
Age	20-21 years	33.03	6.6	3.40	109
	22-23 years	36.25	7.3	3.48	32
	24-25 years	30.20	6.0	3.01	49
	26 & above	23.50	4.7	3.33	10
Gender	Male	32.78	6.6	3.87	79
	Female	32.11	6.4	2.97	121
Education level of student	Diploma Level	31.88	6.4	3.38	8
	Graduation	32.37	6.5	3.29	139

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

	Post-Graduation	36.00	7.2	4.25	15
	Others	31.05	6.2	3.25	38
Stream of study	Medical	29.17	5.8	3.27	24
	Non – medical	27.27	5.5	3.01	11
	Humanities	33.67	6.7	3.05	60
	Commerce	34.12	6.8	3.71	57
	Other	31.46	6.3	3.38	48
Year of study	1st year	33.43	6.7	3.13	67
	2nd year	34.85	7.0	3.64	33
	3rd year	30.99	6.2	3.38	81
	4th year	20.00	4.0	1.73	5
	5th year	33.93	6.8	3.75	14
Religion	Hindu	31.33	6.3	3.07	64
	Muslim	43.33	8.7	0.58	3
	Sikh	32.66	6.5	3.53	126
	Others	32.14	6.4	2.99	7
Relationship status	Single	32.80	6.6	3.23	141
	Committed	30.00	6.0	2.86	24
	Broken up	32.33	6.5	4.37	15
	Married	33.33	6.7	3.51	3
	Unmarried	32.06	6.4	4.18	17
Area of residence	Urban	30.54	6.1	3.26	101
	Rural	34.24	6.8	3.40	99
Family income	10,000 – 50,000	33.46	6.7	3.11	91
	51,000 – 100,000	36.15	7.2	3.57	52
	101,000 – 200,000	26.18	5.2	3.19	34
	201,000 – 500,000	28.70	5.7	3.52	23

Discussion and summary

The major findings of the study and discussion them in relation to similar studies conducted by other researchers. The aim of the study was to assess the prevalence, pattern and effect of excess use of earphones and other musical devices among younger adults in District Fathegarh Sahib, Punjab.The findings of the study have been discussed as per the objectives along with the findings of other studies.

Objective 1 To assess the prevalence of excess use of earphones and music devices among younger adults.

Finding 1.48% younger adults were used earphones and other musical devices sometimes followed by 35% that used daily. 62% younger adults using these devices in between half an hour or one hour in a day. 26% younger adults prefer to listen rock music during travelling time. 83% younger adults were used mobile phones for listen to music at home. These findings were consistent with the findings of **Asghar Mohammadpoorasl, Mohammad Hajizadeh et al.** conduct a study on prevalence and pattern of using headphones and its

ISSN: 0975-3583,0976-2833 VOL12, ISSUE 05, 2021

relationship with hearing loss among students. The study results showed that most of the participants listened to music on their cell phone 81.7% and 89.6% of them used headphone for listening to music.

Objective 2. To assess the effect of excess use of earphones and music devices among younger adults.

Findings 2. Younger adults had severe effect on hearing (1.5%), moderate (34.0%) and mild (64.5%). Hence it is concluded that majority of younger adults had mild effect on their hearing. These findings were consistent with the findings of **Viktor Magnusson** conduct a study on effect of excessive use of earphones among students. The study results showed that mild hearing impairment (60%), moderate (35%) and severe (5%).

Objective 3. To find out the association between excess use of earphones and music devices with their selected demographic variables of district Fathegarh sahib, Punjab.

Findings 3. The findings of the study suggest that there was a significant association ($p \leq 0.05$) of the level of knowledge with their demographic variables (Age, Gender. Education level of student, Stream of the study, Year of the study). There was no significance association ($p \geq 0.05$) level of knowledge with their demographic variables (Religion, Relationship status, Area of residence, Family Income).

Major finding related to demographic characteristics of younger adults

- Maximum younger adults in the age group of 20-21 years i.e. 54.5%.
- There was 39.5% males and 60.5% females.
- Maximum younger adults were studying in graduation i.e. 69.5%.
- Maximum younger adults were from humanities stream i.e. 30.0%
- Maximum younger adults were in third year i.e. 40.5%.
- The most of the younger adults were in Sikh religion I.e. 63.0%.
- Maximum younger adults were single i.e. 70.5%
- Most of the younger adults reside in urban area 50.5%.
- Maximum no. of younger adults was from the family having annually income from Rs 10,000- 50,000 i.e. 45.5%.

The summary of the study, its finding and conclusion, the implication of the nursing education, nursing administration and nursing research has been started. This chapter ends with suggestion and recommendation for research in future.

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