

ORIGINAL RESEARCH**An exploratory study to assess the prevalence, pattern and effects of excess use of ear phones and music devices among younger adults in district Fatehgarh sahib, Punjab****¹Ravinder Kaur, ²Gurpreeti, ³Tarnjeet Kaur, ⁴Puneet Gill, ⁵Raksha**^{1,5}Lecturer, ^{2,3}MSc Scholar, ⁴Assistant Professor, Desh Bhagat University Mandi Gobindgarh, Punjab, India**Correspondence:**

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Abstract

An exploratory study to assess the prevalence, pattern and effects of excess use of ear phones and music devices among younger adults in district Fatehgarh sahib, Punjab 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 The result of the study showed that it was conducted that majority of younger adults had mild effect on their hearing.

Key Words- Prevalence, Pattern, Effect, Devices, Mild, Hearing**Introduction**

In the new era of urbanization and westernization of lifestyle in our hour is faster. Busy lifestyle influences the adolescents in hearing music. It is one of the stress busters in the modern world. Adolescents are spending more time for music with earphone and they are unaware of the health hazards.

Hence, to mark International Ear Care Day, celebrated each year on March 3rd, WHO is launching the "Make Listening Safe" initiative to draw attention to the dangers of unsafe listening and promote safer practices. In collaboration with partners worldwide, WHO will alert young people and their families about the risks of noise-induced hearing loss and advocate towards governments for greater attention to this issue as part of their broader efforts to prevent hearing loss generally.

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.

Problem statement

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

Objectives

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

Operational definitions

Assess: It refers to assess the prevalence, pattern and effect of earphones and other musical devices in younger adults.

Prevalence: It refers to the existence of the pattern of musical devices, duration of listening music and effect of excessive use of these devices prevailing among younger adults of district Fatehgarh sahib.

Pattern: it refers to the way of listening music that younger are using nowadays.

Effects: It refers to the consequence of excessive use of personal music devices on younger adults.

Music devices: It refers to those devices that can play digital audio files such as home theaters, speakers, MP3 CD and DVD players, Radio, disc jockey (DJ), Walkman, 8 track tape player, Boom box, Amplifier.

Younger adults: In this study, the younger adults whose age lie between 20 to 28 years.

Delimitation of the study

The study is delimited to only those younger adults:

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

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 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

A target population consist of the total number of people or objects which are meeting the designated set of criteria. (S.K. Sharma, 2011)

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

Sampling is process of representative segment of population under the study.

(S.K. Sharma, 2011)

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

Sample size

Sample consists of a subsets of units which comprise the population selected by investigations or researchers to participate in their research project.

(S.K.Sharma,2011)

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.

Development and description of 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 music devices among degree students of state Punjab.

The following data tool were used in order to obtain the data:

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

Validity of research tool (S)

Validity refers to the extent to which an instrument accurately reflects the abstract construct (or concept) being examined. (S.K. Sharma, 2011)

The research tool was validated as follows:

- Research supervisor and co- supervisor were consulted regarding the content and language of the research tool.
- Experts from the field of mental health nursing were consulted to improve the short comings in the research tool.

Reliability of research tool(S)

The reliability of an instrument is a major criterion for assessing its quality adequacy. It is the ability of the data gathering device to obtain consistent result.

Reliability refers to the extent to which an instrument consistently measures a concept: three types of reliabilities are stability, equivalence and homogeneity.

(S.K. Sharma, 2011)

The reliability was calculated by split half correlation and spearman- brown prophecy on subjects participated in pilot study. The reliability of tool was 0.7 by split half correlation and

0.8 by spearman- brown prophecy for excess use of earphones and other musical devices among younger adults which indicated that tool is reliable.

Ethical considerations

Ethical approval was obtained from ethical committee of Desh Bhagat University, Mandi Gobingarh for conducting the study. Written permission had been taken from the registrar of private colleges and universities of district Fatehgarh Sahib.

Result

Section A

Description of demographic data

The section describes the demographic characteristics of younger adults of private colleges and universities of district Fatehgarh 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 |
| 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.

Figure No 1: Diagram showing frequency Distribution of Demographic variables.

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 earphones and 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 | | | | | |
| 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 – | 0 | 7 | 27 | | | | | |

| | | | | | | | | |
|-------------------------|---|---|----|--|--|--|--|--|
| 200,000 | | | | | | | | |
| 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 |
| | 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 |
| 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 |

| DOMAIN – A ENTERTAINMENT VENUE | 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 | 36.5 % | 5.0% | 6.5% | 20.0 % | 18.5 % | 13.5 % | 73 | 10 | 13 | 40 | 37 | 27 |

| | | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|-----|----|----|----|----|----|
| similar, school dances) | | | | | | | | | | | | |
| 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 |
| How often you go to pub/club with music playing (band, Jukebox) | 53.0 % | 7.0% | 8.5% | 7.0% | 13.0 % | 11.5 % | 106 | 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 | 31.5% | 51.5% | 11.5% | 3.0% | 0.5% | 2.0% | 63 | 103 | 23 | 6 | 1 | 4 |

| | | | | | | | | | | | | |
|---|-------|-------|-------|------|------|------|----|----|----|---|---|---|
| you spend to listen music on Speakers? | | | | | | | | | | | | |
| 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 |
| | 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 |

Major findings

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%.

Finding related to criteria to assess prevalence, pattern and effects of excess use of earphones and other musical devices among younger adults.

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

Finding related to association between excess use of earphones and music devices with their selected demographic variables

The chi square value indicated the following statically association between excess use of earphones and music devices with their selected demographic variables.

- The present revealed that there was significance association between age of the subject and level of score.
- The present revealed that there was significance association between gender of subject and level of score.
- The present revealed that there was significance association between education level of student of subject and level of score.
- The present revealed that there was significance association between stream of study of subject and level of score.
- The present revealed that there was significance association between year of study of subject and level of score.
- The present revealed that there was significance association between religion of subject and level of score.
- The present revealed that there was significance association between relationship status of subject and level of score.
- The present revealed that there was significance association between area of residence of subject and level of score.
- The present revealed that there was significance association between family income of subject and level of score.

Delimitation of study

The study is delimited to only those younger adults:

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

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 Fatehgarh Sahib, Punjab.

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