

An Investigation of Perspectives and Risks of Noise Induced Hearing Loss through Ear/Headphone Music to People in Zimbabwe: Changing Lifestyles of People through Healthy Hearing Practices

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Abstract: *Utilising qualitative in-depth interviews and the phenomenological design the study explored perspectives of Harare urban, purposively selected youths and adults on the effects of excessive exposures to noise. Point of saturation determined the number of study participants. This study was necessitated by prevailing excessive noises, noticed addiction to earphone music and various held definitions of noise induced hearing loss. The study revealed that, most young people regarded loud earphones music as technological progress without paying attention to damages being caused to the ears. They also took the habit as a means of vending out their social ills and challenges without noticing that the conditions remained and even became doubled when their hearing mechanisms became damaged. Underpinned by the Transtheoretical Model (TTM) this study discussed impacts of noise induced hearing loss on the public and development with a view to conscientise and change the lifestyles of people through healthy hearing practices.*

Keywords: *changing lifestyles, healthy hearing practices, noise induced hearing loss*

1. INTRODUCTION

Worldwide, generally new developments have led to an advancement of science and technology with a marked dispersal of technological information. This has not left the music industry underdeveloped. 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 though seemingly switching over to adults and even some elderly people. Basing on the researchers' experiences; one as a specialist teacher and lecturer in deaf education and the other, as a medical student doctor, the main focus of this study was to determine whether the Zimbabwean community which is gradually getting addicted to ear/headphones music and video listening was aware of the damages they are imposing to their ears. That then, drove the researchers to investigate the perspectives of the public on noise induced hearing loss. Speculations showed that, people had different perspectives and definitions for noise induced hearing loss (NIHL) and its impacts.

1.1 Background to the Study

One day, as the specialist teacher/lecturer and the medical student [who are the authors of this study] were travelling together to town in a commuter omnibus they observed that, nearly all the youths and some elders had their ear/headphones on. The key issue about this was that, the commuter conductor called out that, one passenger had not paid but nobody answered him including the young man who had not paid and had his headphones on. It was only after the conductor asked each one to explain how they had paid their money that this young man

surprisingly looked at the conductor, quietly took money from his pocket paid and continued via the ear/headphones to listen to his music personal player. Although the rest of the passengers were angry with this young man, he did not bother to take off his ear/headphones but innocently continued to show through body language, that he was enjoying what he was listening to. As if that was not enough, the same young man was almost run over by cars while crossing the road after alighting the omnibus with his ear/headphone on. It was at this point that, the authors of this study thought of investigating the effects of the usage of ear/headphones and their impacts on a person's lifestyle and hearing. The study was therefore driven by people's growing addiction to ear/headphones music in Zimbabwe.

Reading literature on the topic added more interest on the study. Von Radowitz (2012) posits that, a recent study by scientists on emerging health risks in Europe concluded that, daily use of ear/headphones and playing loud music could cause permanent and irreversible hearing problems. The studies further estimated the numbers of people at risk to NIHL in Europe to be between 2.5 and 10 million excluding numbers in other countries, such as, United States of America (USA), China, Japan, Australia and other parts of the world where personal music are widely played via the ear/headphones. Teenagers who use personal music players for long periods are particularly at risk because their hearing is acutely sensitive and also over exposed (Glynn, 2012; Schessel, 2012). In the United Kingdom, the Royal National Institute for the Deaf (RNID)'s survey showed that, at least two out of three people who used ear/headphone players for music or videos had their volume turned up to dangerous levels of over 85 decibels.

On the other hand, statistics from the Centers for Disease Control and Prevention in the USA shows that around 5 million teenagers in America aged between 5 and 20 have some form of noise induced hearing impairment. Apparently, the number of children in the USA who have problems with their hearing due to exposure to noise increased from 13 million at the beginning of the 1970s to over 30 million today. This is quite a massive increase which should ring an alarm bell to nations at large including Zimbabwe whose statistics of noise induced hearing loss are not known. Should nations sit back and watch, the hearing of the majority of the population continue to deteriorate due to ear/headphones music induced hearing loss. The international statistical records of NIHL ring an alarming siren to developing countries, such as, Zimbabwe with little or no idea of the impact of ear/headphones music. Using the transtheoretical model (TTM), the study attempted to answer the following questions with a view to control the situation. 1) How do people perceive NIHL from ear/headphones music/games/videos? 2) What perspectives do people have on the possible causes of NIHL? 3) How can people's lifestyles be transformed through healthy hearing practices in Zimbabwe? 4) What could be done to control the situation?

1.2 Statement of the Problem

If education opens closed doors to knowledge why do people who claim to be highly educated continue to portray behaviours of ignorance on the impact of ear/headphone music induced hearing loss?

2. RELATED LITERATURE REVIEW

The section discussed related literature reviews and studies related to the topic.

2.1 Theoretical Framework

There are several models of behavior change in the field of health. The Transtheoretical Model (TTM), is one of the most widely applied and tested framework in health settings which is used to assess an individual's readiness to act on a new healthier behaviour. This model is sometimes called the Stages of Change Model or the theoretical model of behaviour change. The model guides this study with a view to change lifestyles of people through healthy hearing practices. This model was first developed in the early 1980s by alcoholism researchers who included Prochaska and DiClemente. TTM presumes that, at any given time, a person is in one of the five stages of change which include; pre-contemplation, contemplation, preparation, action and maintenance. However, some researchers have six stages where the sixth stage is termination. TTM has been applied to health behaviours by various clinicians and health educators in; dieting, alcoholism and in exercising to counsel patients/clients. However, one does not need to be an expert to successfully use it but anyone motivated to bring change can use it to assess any

situation and formulate strategies. Here are the TTM stages of change and descriptions of how people move through the stages.

2.1.1 Pre-contemplation

At this stage, you have no conscious intention of making a change, whether through lack of awareness or information. The other reason for this is because one has failed in the past and feels demoralised. It is here where some people may suggest that they have tried so many times and it has proved hopeless. At this stage one may avoid reading, talking, or thinking about the unhealthy behavior, but their awareness and interest may be sparked by outside influences, such as public information campaigns, stories in the media, emotional experiences, illness, or a clinician's or family member's concern. However, to move past pre-contemplations, one must sense that the unhealthy behavior is at odds with important personal goals, for example, being healthy enough to enjoy sharing conversation and secrets at a conversational.

2.1.2 Contemplation.

At this stage one promises self or relatives to change in the next six months or so. The stage is classified as contemplators. In reality, people often vacillate for much longer time than that. Here, the victims are aware that the behavior is a problem and are considering doing something about it, but are still not committed to taking any action. Ambivalence may lead you to weigh and re-weigh the benefits and costs of changing the life style and may debate, "*If I stop or minimise the loud music of my earhphones, I'll lose the enjoyment or "I know prolonged exposure to ear/headphones could result in damaged ears, but it helps me relax; if I quit, stress could cause me to get killed."* The debates and excuses maybe a long list but that should not scare away the health educators. Here, health educators use several techniques to help people move on to the next stage. One is usually educated on the pros and cons of the behaviour and explained why it is necessary to make the change, and is further asked to examine the barriers and suggest ways of overcoming them. Constant referral to the list should give homework to the particular victim and conscientise him/her to do something about, such as, reducing the habit.

2.1.3 Preparation.

At this stage, one knows that s/he must change, believes and starts to plans for the change as soon as possible within a short proposed period, such as, the following month/week and extra. Here, one puts into place the requirements to meet the plans or situations that may provoke the habit. The victim may plan together with the health educators possible solutions to always have a thirst for earphone music, such as, playing games and joining clubs that would not allow the use of earphones. In addition to that, a list of alternatives maybe made to create a realistic action plan with achievable goals and source-able resources. This is likely to make one work up to more ambitious goals.

2.1.4 Action

At this stage one has changed, stopped or minimized earphones music even though Prochaska, cutting suggests that cutting down would not be "action" but preparation for action. Here, one begins to experience the challenges of life without the old behavior and would need to practice the alternatives. If the victim identified supporters, the health educator may invite them to encourage them to continue to give the support to the victim. If stress tempts the victim is encouraged to use the discussed healthy coping strategies. Here, the victim maybe asked to write down reasons for making the changes and read them to self everyday. In other words, one engages in "*self-talk*" to bolster the resolve. Getting other close people to know about it could enhance the support for the idea.

2.1.5 Maintenance

Here, one is in the maintenance stage. One may practice the new behaviour change for at least six months. At this stage, one would be working to prevent relapse and integrate the change into their lives. That may require other changes, especially avoiding situations or triggers associated with the old habit. It can be tough to fully assimilate the new healthier habit continued and being kept busy with none triggers could be of help.

2.1.6 Termination

In this stage, people have no desire to return to their unhealthy behaviours and are sure they will not relapse. Since this is rarely reached, and people tend to stay in the maintenance stage, this stage is often not considered in health promotion programmes though an enabling stage to finally terminate the habit. The model is equally supported by Prochaska, and DiClemente (1992).

2.2 Limitations of the TTM

There are several limitations of TTM, which should be considered when using this theory in public health. Limitations of the model include the following: There are no clear time limits for each stage, or the length of the period a person can remain in a stage. This model assumes that, individuals will always make coherent and logical plans in their decision-making process yet this is not always the case.

The Transtheoretical Model provides suggested strategies for public health interventions to address people at various stages of the decision-making process. This can result in interventions that are tailored (i.e., a message or program component has been specifically created for a target population's level of knowledge and motivation) and effective. The TTM encourages an assessment of an individual's current stage of change and accounts for relapse in people's decision-making process.

2.3 Noise Induced Hearing Loss (NIHL) and their Effects

Noise induced hearing loss (NIHL) is a kind of hearing loss which is currently receiving a great deal of attention as proposed by Van Riper and Emerick (1984). NIHL produces a gradual loss of hearing and is due to exposure to loud noise over a long period of time. Van Riper and Emerick (1984) further caution us not to confuse NIHL with “acoustic trauma” which is a sudden loss of hearing due to exposure to a loud noise such as an explosion. It is recently one of the most likely common types of hearing loss in the world.

There is a growing concern over environmental noise as revealed in surveys conducted by the Environmental Protection Agency in Van Riper and Emerick (1984) where excess noise was the most undesirable neighbourhood condition mentioned by a large sample of persons polled. The respondent found it even more irritating than crime or deteriorating housing. The Independent (2014) loud music played on earphones causes deafness by having a similar effect on nerves known as multiple sclerosis (MS).

2.4 Factors Contributing to Noise Induced Hearing Loss

We should be concerned about the noise generated by aircraft, increased city traffic and new industry. In Japan's largest cities, the lighted signs on bank buildings display the decibel level of traffic noise as well as temperature and time; when it peaks over 85dB, people go inside or otherwise protect their ears. A more subtle danger to the ears of youth also exists. A number of studies have indicated that “hard rock” music can cause NIHL. High intensity sounds in the recreational environment was counted as another factor. The Independent (2014) and studies by Van Riper and Emerick (1984) showed that, high intensity sounds in the recreational environment have proved to have a greater danger to the community although debates are ongoing about the amount of effects. The studies further indicated that, immediately after a concert the participators usually showed a temporary loss of sensitivity, a short-term shift in their hearing thresholds. Person working in the noise environment may be exposed to noise that may cause them not to hear the birds sing, the tick of a watch or even an ear-splitting sound of a hammer flattening steel bars and would reveal a high frequency sensorineural loss.

NIHL causes damage to the higher frequencies first, it actually destroys delicate hair cells in the cochlea. The point of greatest loss is usually at 4000Hz and this is referred to as an “acoustic dip.” Such people often face challenges when interacting with various social groups. Thus, may withdraw from social contacts. Prolonged exposure to noise can also cause other physical impairments including low fetal birth weight, ulcers and cardiovascular disorders. Evidence is also accumulating that noise pollution is psychologically debilitating (Van Riper and Emerick, 1984).

2.5 Safe Listening to Ear/Headphones Music

There are several measures that one can take to minimise ear damages from listening to ear/headphones music on a personal player. It is most important to turn the volume although many people forget to do so. Restricting the time spent each day to listening to music through earphones could minimise ear damages only if loudness is controlled. If one can hear the sound being delivered into another person's ear via the ear/headphones, indicators are that the sound is too loud and when exposed to such noise over an extended period that can lead to permanent hearing loss (Suskovic, 2012; Van Riper and Emerick, 1984). Although many people like to turn their headphones up as loud as they can after having a bad day or to get their mind off things that could be bothering them, experts from the University of Leicester have shown evidence for the first time that turning the volume on your headphones up too high can damage the coating of nerve cells, eventually causing temporary or permanent deafness. (<http://www.medicalnewstoday.com/articles/249646.php>). The myelin sheath is a coating found on nerve cells that carry electrical signals from the ears to the brain and should not be left to be damaged by loud and/or prolonged earphones music.

Here are some loudness/time facts to consider at: 95 dB, damage was likely to occur after four hours of exposure per day; 100 dB, damage could occur after two hours of exposure per day; 105 dB, damage may occur after one hour of exposure per day; 110 dB, damage could occur after 30 minutes of exposure per day; and at 120-plus dB, immediate damage was possible (<http://www.medicalnewstoday.com/articles/249646.php>).

Though expressed differently that was equally supported by Glynn (2012) and Suskovic (2012) and also (<http://www.earhelp.co.uk/can-earphones-damage-your-hearing.html>).

An awareness of the above noise intensity level could help individuals to control the loudness of their ear/phones music and even finding out whether the people sitting next to them are hearing the music may be another sign to tell that the loudness of the music is uncomfortable to the ear. Such people if conscientious of the effects may turn down their volumes.

3. METHODOLOGY

The study used the qualitative research methods and the phenomenological design to investigate perspectives and risks of noise induced hearing loss through ear/headphones music to people in Zimbabwe with a view to change their lifestyles through healthy hearing practices. The qualitative method and the phenomenological design were selected as the best to elicit information for this study because they both delve into participants' "deep self" and produces more authentic data which is supported by verbatim presentations. Both provided answers to what, who and how questions. As supported by Marvasti (2004) and Creswell (2003) the qualitative approach was appropriate in this study because it provided detailed rich in-depth descriptions and analysis of the human experiences. Thus, the phenomenological design and the qualitative approach are not diametrical opposites but they complement each other.

3.1 Participants

The study participants were selected on the basis of long periods of exposure to ear/headphones use and to listening to music through them plus interest as an added advantage to take part in the study. Thus, participants volunteered to take part in the study on the given basis while the researchers credited their suitability. As a measure of ethical considerations informed consent was sought from the participants and the obtained information was subjected to confidentiality as data was presented with anonymous names of participants. The study did not have a prescribed sample population but the point of saturation determined the sample size.

3.2 Data Collection

The qualitative approaches, such as, in-depth interviews, observations and document analysis were employed to collect data. In-depth interviews were augmented by observations and data from related literature reviews. In-depth interviews were appropriate as a major data collection tool in this study because they provided a multi-perspective understanding of the topic. Open ended questions and probes were used to gain more insights on observed body language and any

misunderstood issues. Here, opened ended questions allowed more fluidity and did not limit respondents to a fixed set of answers. Thus, Johnson (2002) points out that; in-depth interviews aim to gain access into the hidden perspectives of the study participants. In other words, they uncover what is usually hidden from ordinary reflections to give understanding to the lived experiences.

3.3 Data Analysis

The collected data was content analysed. According to Patton (1990) the focus of the phenomenological lies in the description of what people experience and how they experience it. In other words, the entire analysis aims to examine the lived experiences from the respondents who produced the experiences rather than from the researcher. Thus, the participants defined the commonalities of the lived experiences in the phenomenon and drew emerging themes and sub-themes from them. In support, Rossman and Rallis (1998) assert that, in phenomenological analysis, the researcher approaches the text with an open mind seeking meaning and emerging structures. The qualitative approach has a weakness of eliciting too much information and even unrequested information that usually results in a bulk of information. In this study, this was minimised through coding data into emerging themes as data was being collected. In addition, it is further condemned for subjectivity and bias but since the data collection approaches were triangulated this weakness was controlled and probing further helped to explain any misunderstood issues during the data collection process.

Furthermore, the qualitative approach is criticised for using sample sizes that are not representative of the study sample and population. Here, the researchers acknowledge this limitation but further argue that, in this study it was likely to have less impact since the individual participant were studied in depth plus conclusions were drawn from the participants' responses and this was taken care of by transcribed verbatim transcripts and extracts from the actual responses in the appendices section. Thus, depending on the way one wants to use the findings from this study, generalisations may be drawn subject to use, focus and intentions of the user.

4. FINDINGS

The study showed that, people held varied perspectives on the influence and impact of ear/headphones music to a person's hearing health. It also revealed that, people were aware of the importance of hearing in their day-to-day undertakings as evident by ways they exploited it to solve their issues and past experiences. The following themes emerged from the study findings: interpretation of noise and NIHL; addiction to ear/headphones use; risks of ear/headphones use and what could be done to control ear/headphones use in Zimbabwe.

4.1 Interpretation of Noise and NIHL

The majority of participants saw earphones music as less harmful to the hearing mechanism but again mixed sentiments were expressed on the effect earphones as issues of loudness were avoided. The study therefore expressed very controversial statements about the impact of earphones music to the hearing mechanism. It revealed that, although the majority of participants were aware that hearing losses could possibly result from the continued use of music earphones they resisted to minimise their usage due to personal reasons. As a result some took induced hearing loss to be only emanating from, *high noise markers*, as proposed by Respondent, 1 and even the majority of study participants had similar views though expressed differently. In view to that, Respondent, 1 defended self by suggesting, *"I do not think ear/headphones music can cause damages to my ears because the intensity of the sounds is not as high as noise at industrial factories."* On the other hand, Respondent, 2 supportively, echoed, *"I think ear/headphones music sounds are wanted and enjoyed sounds, so they are not noise and they should not cause noise induced hearing loss that you are talking about."* This respondent also resisted to stop using music earphones by suggesting that, to-date she had not come across anybody claiming to have acquired NIHL from music earphones.

"If earphones music caused damages to ears then more than half the population should be deaf by now. I agree that heavy explosives can cause hearing loss and not such small gadgets like earphones [Respondent 5]." This respondent therefore denies the prevalence of earphones music induced hearing loss in the country.

4.2 Addiction to Ear/Headphones Use

The study findings showed that, the majority of participants had become addicted to listening to ear/headphones music, games and videos despite the awareness of the side effects of the habit. While some of the participants were driven into the earphones music habit by situations surrounding them others did it for pleasure or the sake of it and/or gave very defensive mechanisms for the act. Addiction was evident by the following excerpts:

I do not think measures need to be taken to stop me from listening to earphone music and videos. When I do not have my music earphones on, I feel dizzy and tired but earphone music keeps me switched on and active. My eardrums should by now be very strong and can never be affected by earphones music [Respondent, 1].

Even when I am in class without my earphones on I sometimes hear some of my best songs played yet my earphones would be off. This is always happening to me and I always question what would be going on in my brain. However, that has not stopped me from using earphones music because I cannot survive without it. I think ear/headphones music sounds are wanted and enjoyed sounds, so they are not noise and they should not cause noise induced hearing loss that you are talking about [Respondent, 2].

I get so annoyed with anyone who disturbs me when I am listening to the music and seeing and listening to videos. I sleep very late while listening to all that. Also many times I have awoken up after mid-night and found my earphones music playing and plucked into my ears [Respondent, 3].

When I am playing the music and videos I like most I feel to be in cloud 9 where no any other person has been to. Nobody can stop me from using earphones music and during most of my free times I am listening to earphones music. I have heard people suggest that, I am damaging my hearing systems through earphones music but I disagree to that [Respondent, 4].

The above excerpts were good enough evident to show that, the majority of ear/headphones users were getting addicted to such habit of listening to music. The study revealed that, the drive for ear/headphones music was caused by many factors. Respondent, 7 is another good example of addiction to ear/headphones music and this respondent further justifies the reason for that when he says, “If I change my music habit how will I entertain myself? If I spend a full day without getting a chance to listen to my earphones music I always feel there has been a gap in my day. I like high volume music and videos.” Some of these factors included;

I feel I am a young father, thus should act and advance in line to technological developments. I have very little time to discuss issues with my wife and children because I use most of my free periods to listen to earphones music and videos. I feel at peace and happy when listening to my earphones music of interest rather than talk to my wife and children who are always making requests for this and that and at times complaining too [Respondent, 7].

Through ear/headphones music I block my past marriage experiences and the loneliness caused by my barrenness. If earphones are banned or no-longer manufactured I do not know how I will survive because earphones music keeps my mind free from past things. Yes, I have heard that one can damage ears through earphones music but to-date my ears can hear very well even though I have read and heard about music hearing loss [Respondent, 8].

As described by the above excerpts, most respondents in this study were aware of the side effects of earphones music and expose to loud music but they are driven into the habit by the circumstances surrounding them. As observed by the researchers, this exhibits that, most people are ill-informed about their conditions. They do not know who to turn for solutions, thus they resort to music to block the conditions from haunting their daily lives. According to experiences of the researchers that may unfortunately not completely bolt out the conditions or circumstances besides exposing one to double tragedy where the adopted habits’ side effects cause health damages while at the same time the issue that drove one into the habit remains unsolved. With regards to this, the researchers proposed counselling or engaging specialist health educators as the possible best answer. Thus, the transtheoretical was proposed by the researchers as the most appropriate measure to control the condition under study.

4.3 Risks of ear/headphones use

The study reflects that, the majority of respondent do not see risks in prolonged use of ear/headphones to listen to music as noted by respondent, 5 in section 4.1.

I only agree that, ear diseases can be spread through sharing earphones because when I shared my earphones with one of my friends who had ear-infection I also contracted the disease and had to go for treated and the clinic argued me to tell all my friends I had shared the earphones with to go for ear check-ups [Respondent, 4].

I have recently started to experience earrings but I am just ignoring it and I believe as always told by my grandmother that it is because somebody will be gossiping me and it is not related to my love for earphones music. I think it is too late to educate us that, earphones music may contribute or cause noise induced hearing loss [Respondent, 5].

As expressed by above excerpts and the responses of respondents in the appendices section, most people blocked sensitivity to the effect of loud earphones music to enjoy or block intra-personal challenges. Respondent, 4 justifies how earphones sharing, a habit that is common amongst people can spread ear diseases within the family or circles of friendships. Davis and Silverman (1978) assert that, noise is the major environmental threat to hearing.

4.4 What could be Done to Control Ear/Headphones Use in Zimbabwe?

In this section, the researchers obtained some of the possible solutions from the way the respondents expressed their experiences or from how related literature reviews resolved similar accounts and also little was based on the experiences of the researchers as specialists who had people with such conditions before. The

I think the manufacturers should improve the quality of their earphones to minimise the damages [Respondent, 8].

Anyway, I suggest that people who feel that there is something wrong with their hearing should visit their nearest physician and also go for counselling so that they accept their situation [Respondent, 2].

I think it is too late to educate us that, earphones music may contribute or cause noise induced hearing loss. To that, I suggest that, the state should not allow the use of things before their pros and cons are researched on and tested, so that people indulge into some of these issues or behaviour with caution [Respondent, 5].

These excerpts cautions governments or states to take an active role in testing appliances and technological gadgets before they flood the market so their marketing is done with some informed knowledge about their use and side effects and how to minimise the conditions. Respondent, 8's response justifies the issues quality and how state should control and make sure that the right goods of quality get to the public. In addition to that, respondent, 5 advises users of ear/headphones music

5. DISCUSSIONS

The findings revealed that ears are very important organs of the human body. As reflected by the collected data ears received both information that could bring about happiness and sorrow. However, the study further noted that, the same ear could be used to resolve unpleasant life encounters through music therapy but where the therapy was over used through ear/headphones, risks were experienced resulting in damaged hearing and/or NIHL. Thus, despite being therapeutic earphones music was acknowledged in other studies as a lifestyle risk factor leading to noise induced hearing loss worldwide (Schessel, 2012; Suskovic, 2012; Van Riper and Emerick, 1984). The study revealed that few people realised that they are unintentionally damaging their hearing through prolonged listening to music through earphones. The impact may start small but causing gradual damages to the ears. The findings also revealed that people had not received education on how to look after their ears

The study showed that prolonged exposure to earphone music could in some instances lead to hearing problems such as temporary deafness or tinnitus (ringing in the ears). As reflected in the collected data, this is one of the taken for granted impact of prolonged exposure to loud music or

ear/headphones music. The findings also showed how some ear damages may progress while ignorantly considering the condition related cultural belief as portrayed by respondent, 5 who echoed, "I have recently started to experience earrings but I am just ignoring it and I believe as always told by my grandmother that it is because somebody will be gossiping me and it is not related to my love for earphones music." This showed that, it is very difficult to separate a man from his/her culture despite acquired knowledge or education. While the ringing of the ears may culturally be due to respondent, 5's cultural believes, the health educator describes that as tinnitus which may be accompanied by dizziness which is vertigo. The message from this study is that, efforts should be directed to control the source of noise to protect people from particular excessive noise exposures and also to identify and protect people who begin to suffer from NIHL.

The study acknowledges it as one of the lifestyles diseases but it does not suggest that people should not wear earphones to listen to personal music but it suggests that, while it is good entertainment users should limit their listening duration. As observed by the researchers if the condition is left uncontrolled they are possibilities of creating a future population with variably damaged hearing systems which may further impact on industrial management and even the nation's communication styles where people may have to always shout in order to be heard. The issue may sound too simple and light yet it may heavily impact on all developments of the future generations as suggested previously in the background of this study.

Making healthy lifestyle changes affects not only our risk for disease and the way we feel today but also our health and ability to function independently in later life (Harvard Women's Health Watch, 2007). What we do for ourselves is often more important than what medicine can offer us. Yet making healthy changes is easier said than done (Harvard Women's Health Watch, 2007). *Even* when we're strongly motivated, adopting a new, healthy habit or breaking an old bad habit can be terribly difficult as revealed by extracted excerpts and responses in the appendices section. One may question how earphones music could be a health hazard. The closeness of the music to the delicate ear parts has possible high damage to the ears especially to loud music lovers. Thus, this study proposed that, the closer the intensity, the higher the damage being imposed.

5.1 Transforming People's Lifestyles through Healthy Hearing Practices

The findings showed that, the majority of study participants took ears for granted and did not take the reprimand of avoiding exposure to prolonged earphones music in order to take great care of their ears until damages occurred. As follow up to that, the researchers propose a survey on the prevalence of ear damages or progressive hearing loss due to ear/headphones music. The researcher observed that the majority of the people were developing extreme habits of listening to personal ear/headphones music at a loud volume. This was justified by the findings too. Informal observations by the researchers indicated that, the earphones music habits have chances of contributing to fatal accidents and limiting production in some instances if not monitored and controlled. The study noted that, people are possibly getting addicted to earphones music/games/videos, thus guided by the TTM framework some people could be helped to control the habit though they may go through stages to do so. In other words, anyone attempting to assist people on the problem under concern should be aware that change may not take form over night but it has to be stagical. Thus, change is a process, not an event. The idea is that people move from one stage to the next. Each stage is a preparation for the following one, so hurrying through or skipping stages is likely to result in setbacks (Harvard Women's Health Watch, 2007).

The TTM emphasizes that, different strategies are needed at different stages. Thus, the study according to the TTM, reprimands health educators not to rush people through BUT take them stage by stage so that they change their lifestyles in order to have a better hearing society that takes care of hearing mechanism to avoid having a population of generations with less hearing or damaged hearing. A population with hearing losses has possibilities of impacting negatively on production and may create a society that speaks to each other with abnormally high voices, against the Zimbabwean cultural practices or norms of conversation exchange levels. That is also likely to cause both domestic and industrial accidents; limit socialisation by promoting isolation and a high spread of ear diseases through shared earphones. The aim is to reduce or limit a society

with hearing losses that are likely to negatively impact on industrial developments and production.

6. CONCLUSION

The study communicates that an ear is an extremely important part of the human body, thus it should be given regular attention. The study found that, music/games/videos were an advanced and easily accessible source of entertainment. The practice of plucking in earphones music when on a journey/walk and/or relaxing seems to be becoming a common practice. Through this study people are cautioned not to be insensitive to ear-aches or pains from prolonged ear/headphones music. No-matter how little the NIHL from music earphones use may be, through related literature reviews, the study urges all victims or anyone suspecting noise impacts after exposure to music to visit the ENT specialists. Early prevention is better than cure. Thus, the study found that many people misjudged how their conditions impacted on the earphones music habits as a peace or therapy consolidator to their problems and unresolved issues and conflicts. Thus, basing on their experiences, the researchers urged all victims of such circumstances to seek counselling first before resorting to personal earphones music as the best therapy.

7. RECOMMENDATIONS

These recommendations are based on the data collected from the study participants, supportive literature and the TTM theoretical framework which guided this study. The recommendations were as follows:

- That people need education on how to maintain good ear health and why good ears are important
- There is need for the health sector to disseminate information on the importance of the normal functioning of each and every part of the human body despite its small size.
- There is need for awareness programmes that, ears being a seemingly small organ, it carries major functions that are important in our daily undertakings and lifestyles.
- People need to be aware of the negative impacts being imposed by the fast developing technology which is gradually taking over the world. There is need for advocacy on ways that can help overcome hearing damages.
- There is need to offer guidance on the importance of communication and how it is closely interlinked with the sense of hearing. It should be stressed that noise induce hearing loss can act a communication barrier at all levels.
- People should be encouraged to engage into leisure activities that improve their health status instead of imposing them to lifestyle diseases
- Due to the evidenced current excessive use of ear/headphones ,there's need to carry out routine audiometric hearing test and thus offer assistance at an early stage in case of an identifiable noise induced hearing loss.
- There is need to educate people on how to spend their lifestyles on worthwhile productive activities rather than just listening to music for the sake of it and pleasure throughout the day rather time to do that should be planned.
- People should be exposed to protective hearing gadgets and be made aware of the important of people with good hearing mechanisms to a country's production.
- The government policy makers should develop periodical ear screening policies which control people from high or prolonged exposure to noise.

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Appendices 1 Case Studies

Respondent 1

I am a secondary school boy. I think noise induced hearing loss is a condition of deafness that is caused by high noise markers. I do not think ear/headphones music can cause damages to my ears because the intensity of the sounds is not as high as noise at industrial factories. As I have already stated, I think noise induced hearing loss can only be caused by heavy sounds, such as, bomb explosions, industrial machinery and aircrafts. I like the ...type of music and I do not think the earphones I am putting on can cause damages to my ears. It is now years since I started using earphones to listen to music of interest without the interference of other people's music and noises. I also use them when I do not want to talk to people. Earphone music keeps me entertained and happy. I only pluck off my earphones when in class and always have them switched on at all the other times. I do not think measures need to be taken to stop me from listening to earphone music and videos. When I do not have my music earphones on, I feel dizzy and tired but earphone music keeps me switched on and active. My eardrums should by now be very strong and can never be affected by earphones music.

Respondent 2

I am a secondary school girl. I use ear/headphones to listen to the type of music and videos that I want to see and listen to. Even when I am in class without my earphones on I sometimes hear some of my best songs played yet my earphones would be off. This is always happening to me and I always question what would be going on in my brain. However, that has not stopped me from using earphones music because I cannot survive without it. I think ear/headphones music sounds are wanted and enjoyed sounds, so they are not noise and they should not cause noise induced hearing loss that you are talking about. I have so far not heard of people who have acquired noise induced hearing loss because of using music ear/headphones but I have heard my uncle who was a war-vet complaining that he developed poor hearing due guns and heavy explosives. Anyway, I suggest that people who feel that there is something wrong with their hearing should visit their nearest physician and also go for counselling so that they accept their situation. I am a peer educator at school and I have found counselling very essential to all life circumstances.

Respondent 3

I am a girl and I am a school leaver. I boyfriend is working in South Africa and he always sends me interesting love videos and music. So each time I miss him I do not want anybody near me but

only listen to this earphones music. I get so annoyed with anyone who disturbs me when I am listening to the music and seeing and listening to videos. I sleep very late while listening to all that. Also many times I have awoken up after mid-night and found my earphones music playing and plucked into my ears. I did not do well in my "O" Levels and my parents often scold me suggesting that I failed because I resorted to music instead of study but still it has not stopped my earphone music habits. I think noise induced hearing loss is any provoking and unwanted heavy noise that someone purposely exposes people to with an aim to damage their hearing. I do not think ear/headphones can cause hearing damages to the ears because one would be playing the music or videos one likes and would be enjoying so I do not expect any damages to the ear in such a situation.

Respondent 4

I am a secondary school boy. To me the world sounds and feels empty without ear/headphones music. I love my earphones videos and music. When I am playing the music and videos I like most I feel to be in cloud 9 where no any other person has been to. Nobody can stop me from using earphones music and during most of my free times I am listening to earphones music. I have heard people suggest that, I am damaging my hearing systems through earphones music but I disagree to that. I only agree that, ear diseases can be spread through sharing earphones because when I shared my earphones with one of my friends who had ear-infection I also contracted the disease and had to go for treated and the clinic argued me to tell all my friends I had shared the earphones with to go for ear check-ups. However, that has not stopped me from listening to earphones music. In fact my desire for earphones music is growing everyday. When I am not listening to my earphones music I feel sick, lost and isolated.

Respondent 5

I am a boy and I am a school leaver. I spend three quarters of the day with my earphones on. My parents always scold me saying that, I am not looking for jobs I shall eat the music that is causing me to be reluctant to look for jobs. I like to listen to heavy earphones music. If earphones music caused damages to ears then more than half the population should be deaf by now. I agree that heavy explosives can cause hearing loss and not such small gadgets like earphones. I have recently started to experience earrings but I am just ignoring it and I believe as always told by my grandmother that it is because somebody will be gossiping me and it is not related to my love for earphones music. I think it is too late to educate us that, earphones music may contribute or cause noise induced hearing loss. To that, I suggest that, the state should not allow the use of things before their pros and cons are researched on and tested, so that people indulge into some of these issues or behaviour with caution. Right now it is too late to tell me that the use of ear/headphones is a healthy hazard to my hearing. I have been using earphones for years and I still can hear as I am responding to you right now. I think your education is coming too late because you should have educated me before earphones were put on the market.

Respondent 6

I am a young adult with hard of hearing deafness. I have volunteered to share with you what I think about the interesting study that you are carrying out. I have seen my brothers listening to earphones music almost throughout the day. I have tried to wear earphones to check whether I will hear any music but I have stopped because I experienced some ear-aches and could not get what brothers proposed to be enjoying. All I want to say is that, the love for earphones music by the majority of the public has resulted in fewer stigmas towards persons wearing hearing aids. This has limited finger pointing at discrimination people who are deaf because deafness is invisible, so before the advent of earphones, hearing aids were used to identify us. But now, a person can describe a person who is deaf at a close range in association to the noticed hearing aid. The coming into use of ear/headphones has helped to transform the mindset of most public people towards the use of a hearing aid. As such I noticed that currently many people who are deaf feel free to move about with their hearing aids. I however support the idea that, users of ear/headphones should not share the gadget because it may spread ear infections or diseases

Respondent 7

I am a young employed adult. I am a married man. My wife is against my interest for ear/headphones music. She always scolds me suggesting that it was time I left that for the youth

and it is time I should behave like a mature married man and father. She keeps on asking me what my children who are in primary education will learn from my behaviour when they get to secondary level. I feel I am a young father, thus should act and advance in line to technological developments. I have very little time to discuss issues with my wife and children because I use most of my free periods to listen to earphones music and videos. I feel at peace and happy when listening to my earphones music of interest rather than talk to my wife and children who are always making requests for this and that and at times complaining too. If I change my music habit how will I entertain myself? If I spend a full day without getting a chance to listen to my earphones music I always feel there has been a gap in my day. I like high volume music and videos. I have a tendency of removing my left earplug each time my wife asks me a question. I have recently discovered that my right ear does not hear the same as my left ear; could it be because of earphone music? If earphones cause damage to hearing why are manufacturers keeping on producing more and more varied ear/headphones? I think manufacturers should come up with regulated and improved ear/headphones that are ear-friendly and do not cause damage to ears.

Respondent 8

I am a young employed unmarried woman. I married several times and divorced because I could not have children in each of the marriages. I have since resorted to ear/headphones music and videos and wine drinking. I usually sleep with my earplugs on. I have very few friends. My major friend is my earphones music. I get so annoyed when some of these friends phone me while I am busy listening to music and videos of interest. I usually answer their calls with short sentences as a sign that I do not want to be bothered. Whenever I am in the house and not at workplace I have my headphones on and I when I switch on the television I always unplug one of the earphones to do double listening or switch off the television when I find it uninteresting. Through ear/headphones music I block my past marriage experiences and the loneliness caused by my barrenness. If earphones are banned or no-longer manufactured I do not know how I will survive because earphones music keeps my mind free from past things. Yes, I have heard that one can damage ears through earphones music but to-date my ears can hear very well even though I have read and heard about music hearing loss. I think the manufacturers should improve the quality of their earphones to minimise the damages.

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