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**AN INVESTIGATION ABOUT THE NEGATIVE INFLUENCES OF CELL PHONES AND
COMPUTERS ON HEALTH TO BRING AWARENESS ON KAZAKHSTAN
ADOLESCENTS**

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Today determinations like health, well-being and technologies are very tightly connected.

The term technology can be explained as a collection of techniques, skills, methods and processes used in the production of goods or services or in the accomplishment of objectives, such as scientific investigation. Technology can be the knowledge of techniques, processes, etc. or it can be embedded in machines, computers, devices and factories, which can be operated by individuals without detailed knowledge of the workings of such things[2]. Teenagers from different generations keep trying to change the world, make it peaceful and better than in the past, they want to investigate their own solutions, which include such directions as: economics, reforms, government. The most effective way to carry such changes for them is to do these through the modern technologies. However they do not realize the effects of technologies and worldwide network on their way of thinking and health which become worthier after some period of time. Moreover we can not miss one of the main drawback of this generation called laziness and technologies are considered to be the main contributors of a such phenomenon. According to statistics the most used technologies are: smartphones, computers and microwave ovens. These are three concepts with which I will work during the project and will study the effects of these technologies on health. There are many influences of technologies, like:

- 1) effects on education;
- 2) effects on society;
- 3) general effects;

However nowadays the most important influence is considered to be the influence on health.

Majority of doctors face every day with teenagers whose eye sides are spoiled and they often complain about having problems with their health .Because the body is electrochemical in nature any force which disrupts or changes human electrochemical phenomena will affect the physiology of the body. this is described in Robert O.Becker's book, The Body Electric, and in Ellen Sugarman's book, Warning, the Electricity Around You May Be Hazardous to your Health[3]. In contrast not many people are aware that these effects appear as a result of using or just being surrounded by these types of technologies, however some people do not realize that such effects can be caused by these objects ,mainly from the radiations which come from cell phones and computers, from objects which we used to use every day. Many scientific studies have investigated possible health symptoms of mobile phone radiation. These studies are occasionally reviewed by some scientific committees to assess overall risks .A 2007 assessment published by the European Commission Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) concludes that the three lines of evidence, viz. animal ,in vitro ,and epidemiological studies, indicate that "exposure to RF fields is unlikely to lead an increase in cancer in humans"

The goal of this research project was to determine whether the public, adolescent are informed or aware of the effects of cell phones and computers or if they are not ,the goal was to informed them about the negative aspects of them and moreover to find out whether they are trying to decrease the negative effects of them or not.

Consequently in this project the main research questions were:

- 1)Are the youth aware of the effects of three affricated technologies or not?
- 2) What actions do the take in order to reduce the negative effects?
- 3)Do they believe in surviving people without these technologies?
- 4) What people be like if they are keeping to use them and if more technologies are created that will be able to replace the people's basic works and actions?

Through the answers to these research questions we can enlarge the understanding of the negative effects of cell phone, computers and microwave ovens and can take actions in order to prevent some of the effects which proceed from them.

The project work included several methods for gathering the needed information. For instance in order to know more about the influences of technologies secondary research was used, which allowed to find more accurate data and source. Moreover the interview with a doctor who is facing every day with people and talk about their health problems was held and it helped to know more about the research and to collect the information which was not given in the internet-sources. In addition it was done a survey with the youth in order to achieved the target of the project. All these methods allowed to gather the important data and one method can complete another if the previous method was inaccurate or outdated.

Foremost ,the secondary research was used as the tool of finding the basic information about the given issue, As this topic in considered to be the well-known and wide spreaded around the world it did not take the difficulties to find the data and many sources were available. However many articles which were searching were outdated and the authors were unknown, which could led to incomprehension of the idea. Therefore only relatively recently published articles, researches and magazines were examined. As the example of it can be the research of negative effect of cell phones which was made by SCENIHR and the article of "the health effects of modern technologies", such articles helped to determine the importance of this issue .

The other type of gathering the information was an interview with the doctor of teenagers, who told about the conditions of her patients and whether they can do a prediction because of what they are in such situation. Moreover the interviews with some teenagers' parents were held in order to know are they inform their children about the influences of technologies and

are they limit their children in the usage of technologies. It helped to highlight the problem of the teenagers in Kazakhstan and the drawbacks of parents attitude in relation with their children.

The last method was an online survey, which include the age limit 12-25. These periods of age were taken because mainly at these periods of times many of them are considered to be addicted to technologies and the second reason is that I study at school and it was easier to do a questionnaire with these ages.

The first part of the survey were the simple questions with typical question with yes/no answers, however then it were open questions which required the explanation of the answer. These survey allowed to reach one of the main goals of the research about the awareness of negative effects of modern technologies on health of adolescent in Kazakhstan.

The collected data was analyzed and used in the project. The results of different methods are described in the next section.

Internet resources were valuable and were used in the written before it section, called Context.

Through the survey and interviews it was known that the majority of teenagers are informed about the negative influences of technologies, but they do not take any actions in order to reduce these influences.

From the interview with the doctor of teenagers Nagima Seidullayevna ,who works at central hospital ,it was known that the big amount of teenagers came to her with complaints about aches in their backs, deterioration of eye side and aches in the area of head which often disturb them and also they complain about not getting enough sleep.” They do realize that these effects come from the overusing of cell phones, computers, however they can not stop or limit the usage of these stuffs, because as they said, they already became addicted to them and technologies became the irreplaceable part of their lives”,-said Nagima Seidullayevna. With the help of the specialist’s discussion it can be concluded that nowadays all teenagers are well informed about the consequences of usage of technologies, because it is spreaded and known topic among the society, however they can not stop using them or limit because of several reasons, like firstly addiction and moreover they are not under the control of grown-ups. These factor is more detailed described in the next interview with some parents of teenagers’.

The further interviews were taken from the parents of teenagers and one of the interviews was taken from the mother of student, who is 17 years old and study at 38 school. The person who was interviewed is Asselya Orynbeke, who is the mother of Sultan Orynbeke. It is known by her about the negative aspects of cell phones, computers and microwave ovens and so she said about her son, however she stated that they use them everyday and they will not limit the usage, because everyone has the same gadgets and if they are so dangerous all humanity was already died. She also stated that she and her husband work and they do not have time to prepare the lunch or supper ,so in such situations technologies are very helpful in order to warm something or to make something quickly with the help of microwave oven .”my husband and me have no enough time to regulate our son’s life. We even can not regulate his grades before the regulating the usage of technologies by him. Maybe it is our fault, the fault of parents who are so busy with their works that we can not even know what is happening in our child’s life”. This interview is considered to be the most useful and sensitive method among others, because through this interview it can be mentioned another direction of this issue. Firstly the wide spreader of such technologies is a result of globalization. Through globalization technologies became so important part of our life that they became as an air for surviving. Moreover nowadays many parents work from morning till night in order to provide a better life for themselves and for their children(it is also one aspect of globalization),but because of this busyness the usage rate of microwave ovens and such technologies which allow to make a quick meal is increasing by each year. Furthermore parents nowadays can not control their children, firstly because they are busy and secondly the child nowadays is growing very fast because of the technologies and he do not let parents to judge or regulate his private life.

The last method was a survey ,which included several online questions with the target audience from 13-25 years old. Overall 35 students took part in survey.

Table 1

The ratio of males and females who took part in survey

Females	Males
23%	77%

Table 2

Te ratio of answers

Surveyed	The answers
The awareness on negative effects of cell phones and computers on health	99,5%are aware of the influences 0,5% are not
How many years do they use these technologies	80%-more than 5 years 13,8%-more than 3 years 6.2%-more than 8 years
How often do they use these technologies	95,5%-everyday 4,5%- rare
Do they notice any changes in their health	100%-yes
Are they are trying to limit the usage	50%-yes 50%-no
Do they believe that in the future technologies can replace people	60%-no 40%-yes
Can humanity survive without these technologies	50%-yes 50%-no

Conclusion

In response to written questions it is possible to make conclusion for each of them.

1) Are the youth aware of the effects of three affricated technologies or not?

All interviewed and questioned students are aware about the influences of three affricated technologies ,however they do not pay attention on them and continue to use them.

2) What actions do the take in order to reduce the negative effects?

The majority of adolescents try to limit the usage by different methods. For instance in order to reduce the usage of computers or cell ph also there were opened questions which required full answers and opinions. For instance, on question what changes students can notice in their health, the majority answered that their eye side became worse ,they can not sleep very well, they often have headaches and they do not walk straightly, because of spending much time in front of the computer, cell phones, however they do not notice any changes because of the using the microwave ovens. On question because of what these types of technologies became so usable, the majority stated the term “globalization” which was mentioned before in this project and also the other part mentioned the laziness of people in the modern world. All students are aware of the influences of technologies on health, however half of teenagers answered that they are trying to limit the usage of technologies, through not using them or using them only when it is necessary, but another part is even not trying, because they explained it as they became addicted to them. As it was written that one half of students (50%)try to limit the usage and another half (50%)is not ,the same proportion is in the statement of willing to survive without technologies. On the contrast the greater percentage of students(60%) believe that technologies can not replace the person in the future, because technologies have no feelings and where people will not exist the progress also will not occupy.

Generally the youth is aware of the influences of technologies, but they are not ready to take actions in order to reduce these effects. The gathered data was helpful and important to write the conclusion of the research. Ones they try to use them only when it is needed and to put cell phones farther to decrease the influence of radiation on their health.

3) Do they believe in surviving people without these technologies?

On these statements the opinions were equally divided. It comes from the person's opinion and which side does he support.

4) What people be like if they are keeping to use them and if more technologies are created that will be able to replace the people's basic works and actions?

Students mostly answered that technologies are not willing to replace people. However if people continue to use technologies and continue to be inactive the collapse of the humanity will be unavoidable.

As a result of this research it can be concluded that all needed aims were done and it is all done in order to raise the awareness of negative effects of cell phones, computers and microwave ovens among the adolescents. However the research was limited in age and it can not be sure about the awareness of adults on this issue, but adults have more experience and have more knowledge about it that is why it was concentrated only on teenagers.

In addition the research highlights that teenagers are all aware of the influences and they are able to take some actions and they will have more knowledge about how to cope with the effects of technologies.

Evaluation

The research overall was well developed and the main assigned questions were answered.

The secondary research was helpful and helped to study more about this issue, especially the research which was held by a Northern California dowsing group called Dowsers Doing Good Deeds (DDGD) that allowed to study the statistics of the negative effects of several technologies. Overall the data was reliable and well conducted.

Conclusion made by the interviews and a survey, which were very important part of this research. Mostly young generation took part in survey, which helped to reach the goal of the research. In contrast the opinions of adults were not mentioned, which means that the conclusion is not generalizable.

The interviews with doctor and also parents were well structured and were held openly and with our any pressure or stress. Opinions were listened admit was easy to communicate in the right atmosphere. This factor made the data relevant and valuable. If the time was not so limited, can be done more interviews which include different question and also adults can be involved also. This method complemented the other method, so the data would be more accurate.

Further research

As other research whether it is perfect or not this research need further improvements and researches.

Firstly, more detailed and valuable research could be done if adults, parents of teenagers were also involved in research, because nowadays adults are also influenced by technologies and it is very interesting for them to try it, however they are not so gambling and can say stop to themselves.

Through the research it was known that teenagers are so good informed about the issue, but they can not decrease or limit the influence of technologies, because of weak spirit and weak motivation of doing something.

The research also has changed my mind about the teenagers and their parents opinions. Before I used to think that all teenagers are aware of the negative influences of modern technologies, but I can not think that most of them try to limit the use and suffer from the addiction and they do realize how they waste their times just sitting in front of the computers and cell phones and also how they became such lazybones as a result of microwave ovens and other techs which make easier our lives. I believe that in the future the next generation can deal with this issue and make safer technologies for people. However for the current generation it can

be advised to spend less time on computers and cell phones in order to reduce the health problems and also to make food by themselves at least 1 day per week.

References

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