

Project Title: Does Music Therapy With Solfeggio Frequency Improve Our Sleep?

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ABSTRACT

The objective of this Natural Science Project aims to help those who have problem with sleeping or those who cannot sleep well.

We can use a sleeping pill to cure this. But it isn't always a good idea to take this pill too often as it may become addictive and it cannot cure sleeping problems directly. The pills are just bypassing the problem. So, we began to search for a more natural way to help people who have problems with sleeping. This covers taking time to sleep, waking up at midnight, or any other sleeping problems. In March 2014, we discovered the “Solfeggio Frequencies”, which are ancient frequencies of healing on accidents. We want to find out whether it is true or not true that the so-called “Solfeggio Frequencies” can actually help those with sleeping problems.

In this project we have been testing out these frequencies by monitoring the sleep using a smartphone app. We have used the frequency of 528 Hz, and mixed it into a calm, relaxing music.

Chapter I INTRODUCTION

Background and Concepts

Since the beginning of human race, sleep is one of the factors that affects our overall health. Many people nowadays have problems with sleeping. Medical report discuss that in Thai society nowadays, sleeping problems due to stress have become a major psychological problem among people of all ages and genders. This may be due to the fast-changing society and economy, as well as various social problems which seem to be at a critical level such as unemployment, poverty, crime and economy. Even for students, due to the structure of the education system it causes an increasing amount and projects. All of these factors leads to the sleeping problems, which in turn affects people's physical well-being and their way of living in various ways.

Many alternative cures and treatments have been made and develop in order to help the problem of sleeping. One of the most popular alternatives is the sleeping pill. Others use alcohol in order to cope with sleeping problems which is actually not advisable as it may lead to alcohol dependence.

In this project, our team is going to test and try to provide healthy alternative of improving sleep for people. We plan to solve this problem by using music therapy with Solfeggio Frequency. We have come up with this topic based on our research. In fact, Solfeggio Frequencies are ancient studies that help sick people recover by listening to music combined with Solfeggio Frequency. However, this study has been forgotten. Our group inquisitively wants to know more of this and its effects particularly in terms of sleeping that might contribute to people's overall health.

In this project, our team developed a hypothesis that would favour the good benefits of music with Solfeggio Frequency to the quality of sleep for people.

Objective of the Study

To find out whether it is true or not that Solfeggio Frequencies can improve our sleep.

Benefits of the study

1. Improves overall health
2. Allows for a deep sleep
3. Obtain sleep faster and easier
4. Makes people feel more refreshed and alert during the day
5. Omits sleeping problems
6. Boost memory

Hypothesis of the Study

1. Music with Solfeggio Frequencies can improve our overall sleep. This is because when we found it for the first time, we listened to it and discover a calm and ear-friendly music.
2. Since some ear-friendly music can help us cope with stress and relax our mind, so we think that the music and frequencies can help improve sleep.

Scope of the Study

1. The project's scope studies if Solfeggio Frequencies can improve our sleep.
2. Target Population
 - People with no sleeping problems
 - People with sleeping problems
 - People 12 years old and above
 - Both Male & Female
 - People who are normally awake or working during the daytime

Chapter II

BACKGROUND RESEARCH

- 1 Information about "Hertz"
- 2 Information about "Solfeggio Frequencies"
- 3 Information about "Pitch of A=432Hz"
- 4 Information about "The sleep-monitoring app for iOS"
- 5 Information about "The sleep-monitoring app for Android"
- 6 References

1. Information about "Hertz"

The Hertz - Hz, is a unit of time to measure frequency, often used by communications and musical instruments tuning. The unit is named after Heinrich Rudolf Hertz. A frequency of one hertz means that something happens once a second.

For example, an FM radio frequency radiation is usually measured in megahertz - MHz, or one million hertz. So, a station that is broadcasting in 103.7 MHz is sending electro-magnetic radiation through the atmosphere in an interval of 103,700,000 times per second.

For music, If the pitch of the note "Middle A" is 432 Hz. This means there are 432 vibrations every second when a Middle A is played. Human's ability to hear sound is somewhere between 20-20,000 Hz. Owl's ability to hear sound is somewhere between 20-120,000 Hz.

2. Information about "Solfeggio Frequencies"

2,1 How Solfeggio Frequencies were discovered

The original Solfeggio scale was developed by a Benedictine monk, Guido d'Arezzo (991-1050 AD). It was used by singers to learn chants and songs more easily. The original scale was six ascending notes assigned to Ut-Re-Mi-Fa-Sol-La. In the mid-1970's Dr. Joseph Puleo, a physician and America's leading herbalist, found six electro-magnetic sound frequencies that corresponded to the syllables from the hymn to St. John the Baptist.

According to the documentation provided in "Healing Codes for the Biological Apocalypse", Dr. Joseph Puleo was introduced, through an open vision, to the Pythagorean method of numeral reduction. Using this method, he discovered the pattern of six repeating codes in the Book of Numbers, Chapter 7, verses 12 through 83.

2,2 The method used to discover the Solfeggio Frequencies

The Pythagorean method is a simple reduction method, used to turn big numbers into single digits. The values of all digits in the number are added up. When after the first addition the number still contains more than one digit, the process is repeated.

“456 can be reduced to $4+5+6 = 15$, and subsequently reduced to $1+5=6$. So the number 456 reduces eventually to the single digit 6.”

Dr. Joseph Puleo found repetitions of a single issue or subject in the Book of Numbers. In Chapter 7, verse 12, he found a reference to the first day, the second day was mentioned in verse 18, the third day in verse 24, and so forth until the final reference in verse 78 which is speaking of the twelfth day.

The Pythagorean reduction of these verse numbers is:

“Verse 12 = 1 + 2 = 3

Verse 18 = 1 + 8 = 9

Verse 24 = 2 + 4 = 6

Verse 30 = 3 + 0 = 3

Verse 36 = 3 + 6 = 9

Verse 42 = 4 + 2 = 6

...until verse 78”

Did you see the repetition of 396? This is the first frequency. Each tone was thoroughly studied by Dr. Puleo and other professional researchers.

He found the next frequency by looking at verse 13, which is speaking of an offering. Six verses down, which is verse 19, the same offering or idea is repeated, six verses down at verse 25 there is another repeat, etc. Thus, by using the Pythagorean method of reduction, again he discovered a pattern. This pattern is 417. It is the second frequency. The rest of the frequencies were found using the same method.

2,3 Name of the frequencies

The syllables used to denote the tones are: Ut, Re, Mi Fa, Sol, La - As described in article 2,1. They were taken from the first stanza of the hymn to St. John the Baptist:

*“Ut queant laxis, Resonare fibris,
Mira gestorum ,
Famuli tuorum.
Solve polluti Labii reatum.,
Sancte Iohannes”*

Literal translation from Latin sentence by sentence:

*“In order that the slaves might resonate (resound) ,
the miracles (wonders) of your creations,
with loosened (expanded) vocal chords.
Wash the guilt from (our) polluted lips,
Saint John.”*

2,4 Function of each frequency

David Hulse, a sound therapy pioneer with over 40 years of experience, described the tones as the following; The first two (174 & 285 Hz) were newly introduced by Dr. Puleo using the same old method

-	174 Hz	Reduces pain
-	285 Hz	Helps Returns tissue to its original form. Restructure damaged organs
UT	396 Hz	turning grief into joy, liberating guilt & fear
RE	417 Hz	undoing situations & facilitating change
MI	528 Hz	Transformation, Miracles, DNA Repairing
FA	639 Hz	Relationship, Spirit, Family
SOL	741 Hz	Cleaning, Solving, Expressions & Solutions
LA	852 Hz	Returning to spiritual order
SI	963 Hz	Awaken Perfect State
DO	1122 Hz	Master Frequency

2,5 How the Solfeggio Frequencies were lost

The Solfeggio frequencies were lost because throughout history different tuning applications have been used. Ancient tuning practises used a system of tuning known as “Just Intonation.” It featured pure intervals between every note that were mathematically related by ratios of small whole numbers leading to a much purer sound. The one from about the 16th century and used today is known as “Twelve-Tone Equal Temperament”. According to Joachim Ernst-Berendt, the 12-Tone Equal Temperament mistunes all consonant intervals except the octave. Our modern scale can create situations such ‘boxed-in’ thinking, stuffed and suppressed emotions, fear-based or lack consciousness, all of which then tend to manifest into physical symptoms called ‘dis-ease’ or disease.

3. Information about “Pitch of A=432Hz”

“If you want to find the secrets of the universe, think in terms of energy, frequency and vibration.” said Nikola Tesla (1856-1943).

Everyone must have been listening to classical music. But, the classical music that is played by the modern world orchestra is not the same as which has been played in the 1700s. This is because of something we called “Pitch adjustment”. Pitch, is basically how we measure sound tone from low to high with vibration, in the unit of Hertz (Hz).

A=432 Hz, also known as Verdi’s ‘A’ or classical ‘A’ is an alternative tuning that is *(Continue article 3)*

mathematically consistent with the universe. Music based on 432 Hz transmits beneficial healing energy, because it is a pure tone of math fundamental to nature. The modern day world pitch A=440 Hz, on the other hand, is the unnatural standard tuning frequency, removed from the symmetry of sacred vibrations and overtones that has declared war on the subconscious mind of Western Man.

The change from 432 Hz to 440 Hz was dictated by the Nazi propaganda minister, Joseph Goebbels. He used it to make people think and feel a certain manner, and to make them a prisoner of a certain consciousness. Then around 1940, the United States introduced 440 Hz worldwide, and finally in 1953 it became the ISO 16-standard.

4. Information about “The Sleep-Monitoring App for iOS”

The sleep-monitoring application that we use in the Apple iOS platform is called “Sleep Cycle” developed by North Cube Inc. Tested by millions and featured in CNN, The Guardian, The Wall Street Journal and many more reliable sources. It has been voted 4,5/5 stars by nearly 70,000 people.

5. Information about “The Sleep-Monitoring App for Android”

The sleep-monitoring application that we use in the Google Android platform is called “Sleep as Android” developed by The Ubandroid Team. This team has more than 5 apps dedicated to sleeping. The app has been voted 4/5 by more than 100,000 people.

6. References

- 6,1 The following article contains information from “bit.ly/1cpN4v1”
- Article 3
- 6,2 The following article contains information from “bit.ly/1nqYr6X”
- Article 2,1
 - Article 2,2
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- 6,3 The following article contains information from “bit.ly/1mJfaGW”
- Article 4
- 6,4 The following article contains information from “bit.ly/IHd0FL”
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- 6,5 The following article contains information from “bit.ly/1p4Z24W”
- Article 1
- 6,6 The following article contains information from “bit.ly/1nVMQzG”
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- 6,9 The following article contains information from
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- Article 2,3
- 6,10 The following article contains information from
“David B. Doty, “[Just Intonation Primer](#)” *Publisher unknown, Year unknown*”
- Article 2,5

Chapter III PROCEDURES

A. MATERIALS

1. Mobile phones of any brand running Apple iOS or Google Android
2. Apple Macintosh Laptop Computer running Mac OS X
3. “Sleep Cycle” software application for Apple iOS Devices
4. “Sleep As Android” software application for Google Android Devices
5. “SPLnFFT” software application for Apple iOS Devices
6. “iTunes” software application for Mac OS X
7. “Audacity” software application for Mac OS X
8. Stereo Headband or speakers
9. “iHealth Activity and Sleep Tracker” computerised watch (Optional)
10. “iHealth My Vitals” software application for Apple iOS Devices (Optional)

B. PROCEDURES

Procedure 1: Selection of Music

Step 1: We've bought the "7 Chakras music" music on iTunes and downloaded it to the computer

Step 2: We've used Audacity to change the A pitch to 432 Hz

Step 3: We've found some Solfeggio Frequencies on YouTube, so we downloaded it

Step 4: We've used SPLnFFT to measure the frequencies to verify accuracy (*See Appendix*)

Step 5: We've used Audacity to adjust the pitch to the desired rate, according to the “Solfeggio Frequencies' Original Scale”

Step 6: We've used iTunes, rip 2 calm instrumental songs from an audio CD

Step 7: We've used Dictation and Speech Option, Record the typed passage

Step 8: We've used the speech, instrumentals, frequencies, and the 7 Chakras music into Audacity

Step 9: We've combined and edited the imported songs, frequencies and speech

Step 10: We've added the album artwork, edited the music tags, and copied it into a USB flash-drive

Step 11: We've designed an instrument manual and printed it (*See Appendix*)

Procedure 2: Conduction of the experiment to the volunteers

Step 1: We've asked students from class to volunteer for the experiment

Step 2: We've told the students to involve their parents too for the experiment (Optional)

Step 3: Based on the instrument manual, we've explained to them how the experiment will work

Step 4: We've followed up the students while they conduct the experiment. We've also asked if they have any questions or problems regarding the application and the flow of the experiment

Step 5: We've gathered the data and calculated the results

Chapter IV
DATA RESULT ANALYSIS

Chapter V
CONCLUSION

Chapter VI
APPENDIX

STUDENTS LIST, INSTRUMENTS USED, PICTURES

Chapter VII
FUTURE IDEAS

Chapter VIII
ACKNOWLEDGEMENTS