**Exploratory Data Analysis**

**Mini Project**

On

**Effects of Music on Mental Health**

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**Introduction**

Our project aims at analyzing the effects that music has on the mental health of people, in order to provide people with insights on how to tackle their mental health issues with music being the mediator. By performing exploratory data analysis in our project, we aim to discover the distribution of effects of music depending on its genre, language, user’s age, user’s frequency of listening to music etc. and suggest the user with music that would help them.

**Problem statement**

Most of the time we underestimate the power of music. Music has always been an integral part of humans. It can fuel anger or can calm down anxiety. The varied spectrum on which music affects us is astonishing.

We identified music’s importance in people’s lives and decided to use it to map their mental health status. People often don’t identify or accept that they might not be alright, psychologically. But their music listening patterns can be used to analyze more than they say.

**“Analyzing the effects of Music on People’s Mental Health”**

**Dataset Description**

For our project we are using three datasets :

1. Google form responses - The first dataset consists of the responses we collected through a google form. We asked the user questions about their music preferences like their primary streaming platform, what genres and languages they listen to, the time they spend listening to music and how they would rate the severity of their anxiety and depression symptoms, all while keeping their identity anonymous.
2. Mental Health Practitioners dataset - Collected by iCALL, this dataset consists of a detailed list of mental health professionals that people trust and suggest, from all over the country. It has details like their age group, qualifications, contact details and address.
3. Spotify - We have scraped the information about the latest top songs of each genre from spotify’s trending playlist.

**Justification**

There are few research papers that show us the importance and relevance of music to mental health. We have managed to mention a few and explain them in short:

1. Music evokes vicarious emotions in listeners

This research explores the complex emotions and responses that humans have on listening to sad music specifically. It challenges the fact that sad music evokes sadness and claims that it rather uplifts a sad mood. The study suggests that this phenomenon occurs because the sad music elicits vicarious emotions in the listeners, creating a sense of sadness that is more akin to a pleasant feeling rather than an entirely unpleasant one.

1. Music, mental health, and immunity

Research conducted on individuals with mental health conditions has revealed that employing music as a primary intervention tool can lead to noticeable enhancements in their mental well-being. Various studies have underscored the wide-ranging advantages of music, such as improved heart rate, motor skills, brain activity, and bolstered immune system function. Given the substantial costs associated with medication and psychological treatments for mental and physical ailments, integrating music into an individual's treatment plan can serve as a cost-effective and complementary approach. Music-based interventions are implemented in therapeutic environments, involving the guidance of trained professionals, as well as in non-therapeutic settings that foster a positive, supportive, and proactive atmosphere.

**References:**

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2. <https://www.researchgate.net/publication/262941027_Music_evokes_vicarious_emotions_in_listeners>