Is your playlist the reflection of your mental wellness ?

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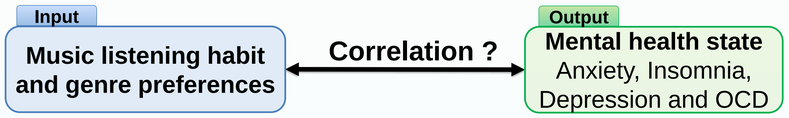
Background & literature review

The average weekly music listening time increases each year. It has been shown music helps for anxiety or OCD.

However, previous studies focus on one music style in clinical settings, which is not representative of this subjective topic



Research questions

Hypothesis 1: Individuals' music listening habits, along with their musical background influence their mental health and perceived music's effect on it

Hypothesis 2: Individuals' music type preferences may also have an impact on their mental health condition and reported music's support for their mental health.

Data & Method

Kaggle survey → 736 answers → 31 variables

Mental health: 0 (no problem) → 10 (extreme disorder)

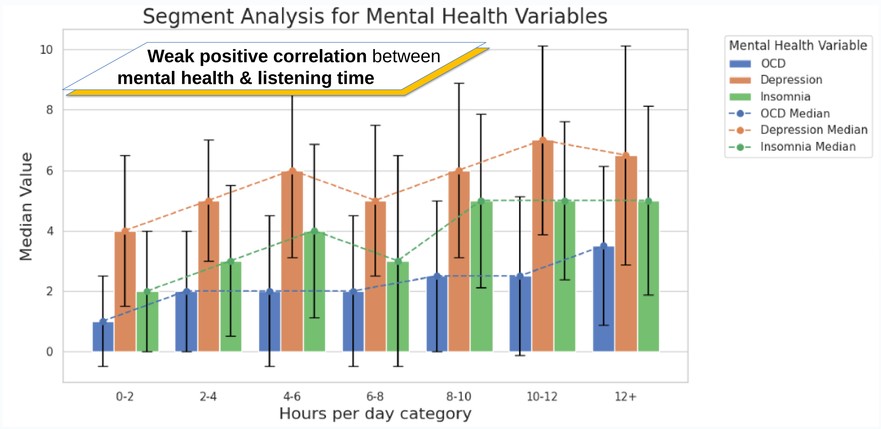
Hours per day (numerical continuous)

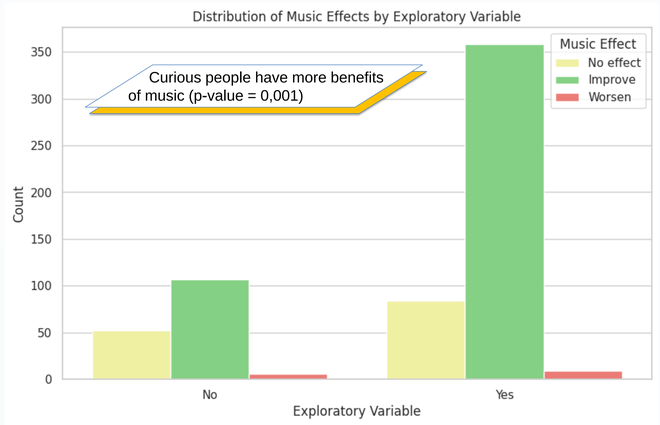
While working (categorical Yes/No)

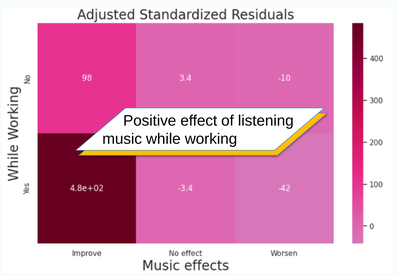
Music effects (categorical: worsen < neutral < improve)

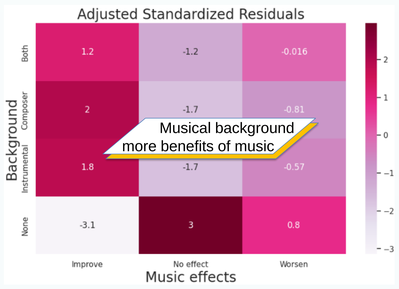
Data cleaning & visualization → Statistical test & Residual analysis → Visualization (heatmap & histograms)

Results





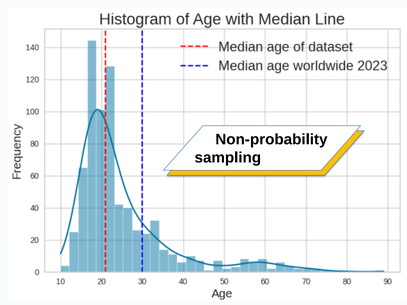


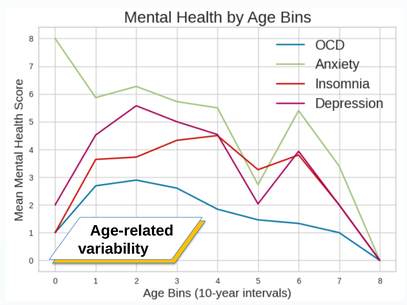


Correlation between Music Listening Frequency and Mental Health Variables (with p-values)

	OCD	Depression	Insomnia	Anxiety
Frequency [Classical]	0.003 (p=0.936)	0.017 (p=0.672)	0.094 (p=0.02)	-0.023 (p=0.563)
Frequency [Country]	0.055 (p=0.17)	-0.061 (p=0.13)	-0.05 (p=0.218)	-0.001 (p=0.976)
Frequency [EDM]	0.098 (p=0.015)	0.066 (p=0.103)	0.089 (p=0.027)	0.057 (p=0.155)
Frequency [Folk]	0.02 (p=0.627)	0.094 (p=0.019)	0.055 (p=0.176)	0.067 (p=0.095)
Frequency [Gospel]	0.023 (p=0.576)	-0.012 (p=0.766)	0.017 (p=0.674)	-0.042 (p=0.299)
Frequency [Hip hop]	0.037 (p=0.36)	0.103 (p=0.01)	0.012 (p=0.76)	0.026 (p=0.525)
Frequency [Jazz]	-0.019 (p=0.629)	0.065 (p=0.105)	0.065 (p=0.107)	0.009 (p=0.83)
Frequency [K pop]	0.047 (p=0.247)	-0.025 (p=0.532)	0.008 (p=0.847)	0.055 (p=0.17)
Frequency [Latin]	-0.014 (p=0.726)	0.015 (p=0.703)	0.051 (p=0.21)	-0.006 (p=0.877)
Frequency [Lofi]	0.072 (p=0.072)	0.039 (p=0.333)	0.091 (p=0.024)	0.064 (p=0.115)
Frequency [Metal]	-0.029 (p=0.466)	0.171 (p=0.0)	0.14 (p=0.0)	0.026 (p=0.519)
Frequency [Pop]	0.039 (p=0.334)	0.063 (p=0.118)	-0.023 (p=0.575)	0.088 (p=0.029)
Frequency [R&B]	0.058 (p=0.15)	0.072 (p=0.072)	0.015 (p=0.71)	0.032 (p=0.422)
Frequency [Rap]	0.026 (p=0.527)	0.128 (p=0.002)	0.021 (p=0.597)	0.057 (p=0.161)
Frequency [Rock]	-0.019 (p=0.629)	0.188 (p=0.0)	0.077 (p=0.057)	0.06 (p=0.136)
Frequency [Video game music]	0.014 (p=0.736)	0.075 (p=0.064)	0.104 (p=0.01)	0.092 (p=0.022)

Limitations





Biased population: voluntary respondents may feel concerned

External factors influence well-being and favorite genre

Discussion & Implications

listening time ↗ **intensity of mental disorder**

Working with music ↗ **improving mental health**

Frequency of listening music genre ⟷ **significantly correlated** ⟷ **specific mental disorder**

Can contribute to **diagnose and manage** theses problems

But **further investigations** with random & larger dataset