GENDER AND PERSONALITY AS PREDICTORS OF MUSIC PREFERENCE AMONG UNDERGRADUATES: IMPLICATIONS FOR MUSIC THERAPY

[1]Aroyewun, B. A*., & [2]Karatu B. A

[1]Department of Psychology, University of Lagos, Akoka- Lagos, Nigeria
E-mail: goodnewsafolabi@yahoo.com, *Corresponding Author
[2]Department of Psychology, Federal University, Gashua, Yobe State, Nigeria

ABSTRACT

Every society today is awash with different types of music and music has attained a prominent place in recreation, leisure, and religion activities. It has also become a form of treatment for stress and emotional issues. This study, therefore, investigated the role of gender and personality in predicting music preference among University Undergraduates. A total of 306 Undergraduate (154 males and 152 females) students participated in this study. The research made use of survey research design and systematic sampling. The Big Five Personality Inventory (BFI) and the Short Test of Music Preferences (S.T.O.M.P) scales were used to elicit responses from the students. Analysis of data was done using the T-test, Pearson correlation coefficient, and Hierarchical Multiple regression. Extraversion had significant positive correlation with Reflective (r=.272; p>0.01), Aggressive (r=.170; p>0.01), Energetic (r=.189; p>0.01), Conventional (r=.129; p<0.05) music dimensions, Agreeableness had significant positive correlation with only Energetic (r=.128; p<0.05) music dimension. Conscientiousness was found to had significant positive correlation with Aggressive (r=.123; p<0.-05), Energetic (r=.151; p>0.01) and the Conventional (r=.148; p>0.01) music dimensions. Neuroticism had significant positive correlation with Reflective (r=.123; p>0.01) and Energetic (r=.151; p<0.05) music dimensions only. Finally, Openness had significant positive correlation with Reflective (r=.326; p>0.01), Aggressive (r=.240; p>0.01), Energetic (r=.271; p>0.01) Conventional (r=.247; p>0.01) music dimensions. It's therefore recommended that the therapist should assess the personality of patients before assigning them to a music therapy

Keywords: Personality, Gender, Music Therapy

INTRODUCTION

Music can be said to have been in existence from the inception of humanity, as a means of cultural identities for groups, societies, and nations to express and modulate emotions. It is used to express love, joy, and sadness. It is also an important ingredient used to bond and care for the infants. Over the years, music has evolved beyond its natural settings, themes and purposes as every society today is awash with different types of music, hence, music has attained a prominent place in recreation, leisure and religion activities. It has also become an essential part or form of treatment for stress and emotional issues. Besides, it's been initiated and used for a multiplicity of diverse diagnoses and treatment needs such as Attention Deficit Hyper-Activity Disorder (McIntyre, 2009), trauma (Davis, 2010), bereavement (Rosner, Kruse, & Hagl, 2010; McFerran, Roberts, & O' Grady, 2010) to mention but a few.

Music an emission from sound energy which was described by Merriam-Webster's Collegiate Dictionary (2018), as both a science and art, is created by ordering tones or sounds in succession, in combination, and in temporal relationships to produce a composition having unity and continuity. Its compositions are complex blends of expressively organized sound consisting of five elements: rhythm, melody, pitch, harmony, and interval (Bunt 1994). According to Thaut, Kenyon, Schauer McIntosh (1999) these five elements are vital when selecting music to invoke both psychological and physiological responses within the listener. It's essential, structural and organizational element is evidenced by the rich variety of music among cultures, the five elements of music, along with its set of rules, combine a finite range of sounds in an infinite number of ways. As one of the oldest and most accepted modes for expressing cultural diversity, music elicits emotional responses and stimulates movement that can be used for therapeutic purposes.

The vibration rate per unit of time can influence an emotional response as rapid vibrations and are viewed as stimulating and slow vibrations are considered as relaxing (Bunt 1994). Some component of musical product blending pitches to form a combination of sounds known as harmony, which links rhythm to the melody which synchronization of skeletal muscle movement and is the most important consideration when selecting music for specific and therapeutic purposes (Thaut, *et al.* 1999) The number of cycles that a particular sound vibrates per second is the third element, pitch. Faster vibrations cause high-pitched tones that are usually associated with cheerful or happy reactions. On the other hand, slower vibrations cause lower tones and typically connote dreariness or depression

For the power of music to involve a person both psychologically as well as physically, it may be useful in teaching the client how to become completely involved in other situations. Vocal music may be useful in two ways: deep breathing as a means of more fully experiencing the body and voice as a means of expressing the inner experience. Instrumental improvisation may also help the client get in touch with polarized parts of the self to reclaim and integrate them. Gestalt therapists use some specific techniques to help the client become aware of the here - and now. It is important to realize, how-ever, that these techniques themselves are not gestalt therapy; the gestalt music therapist will view disturbed behavior in the context of the theory. The goal of therapy will be to increase awareness of the present experience; music will facilitate this awareness and help resolve polarities or other problems interfering with the client's ability to experience self-regulation.

Music in today's world has become an inseparable companion for the young and the elderly. It has gained more acceptability and patronage with the upsurge in the different mediums, applications, devices with which listening to music is easier and handier. However, the type of music an individual listens to is said to be a function of the person's personality. Over the years, attempts have been made to assess individual personality via clinical or work dimension such as in selection examination in China in 1115 BC (DuBoise, 1970), Rorschach Inkblot Test (Rorschach 1921), Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1940), nevertheless Cattell was the first to discover an objective way of measuring normal

personality functioning through factor analysis which lead to the discovery of the 16 personality factors or traits which is used to test individual personality (Cattell & Stice, 1957). Cattell attempt was soon followed by the work of Paul Costa and Robert McCrae in which they developed a Five-Factor Model Personality inventory which is commonly referred to as the Big Five published in 1985 as a measure of the five major personality dimension in normal personality to assess: Openness, Agreeableness, Neuroticism, Extraversion, and Conscientiousness (Costa & McCrae, 1985; Butcher, 2009). Although previous research has examined the effectiveness of music interventions in psychotherapy with adolescent clients, there has been limited data regarding personality and music preference for undergraduates. Several researchers and authors have worked on the relationship between music preference and personality, one of the initial work in this direction are that of Cattell & Saunder (1954) in which they found extraversion construct as been significantly positively associated with music preference in terms of strong rhythms and fast tempo. For Rawlings, Barrantes, Vidal, & Furnham, (2000); Cleridou & Furnham, (2014), openness to experience was posited to be a more vigorous attribute in predicting aesthetic preferences. In another study Rentfrow & Gosling (2003) investigated the link between personality and music preference and found the following four genres of music preference through factor analysis of their Short Test of Music Preference (STOMP): Reflective-Complex (RC); Intense-Rebellious (IR); Upbeat Conventional (UC); and Energetic-Rhythmic (ER).

The Reflective and Complex dimension, includes music genres hypothetically labelled to being of sophisticated nature and somewhat complicated (blues, jazz, classical, and folk); Intense and Rebellion dimension, includes music genres perceived as unconventional, provocative and fierce (rock, alternative, and heavy metal) Upbeat and Conventional dimension: includes music genres perceived as gingery, peppy, cheerful and happy (country, soundtrack, religious, and pop) while Energetic and Rhythmic dimension: include genres that are characterised by fast tempo (rap/ hip-hop, soul/funk, and electronic/dance).

It was observed that openness to experience is significantly positively correlated to preferences for RC and IR genres of music, while openness to experience inversely linked to UC music preference, whereas extraversion has been positively linked to ER music preference (Rentfrow & Gosling, 2003; Zweigenhaft, 2008; Vella & Mills 2017). Chamorro-Premuzic and Furnham (2007) explored the relationship between Individual differences and a self- report inventory of uses of music using the big five personality factors, IQ and typical intellectual engagement. They established three main uses of music; emotional, cognitive and background. People who used music for emotional reasons would do so for emotional regulation and mood manipulation. Cognitive factors involved the rational appreciation and intellectual processing of music and background music would be when people listened to music passively in social situations or at work for example. The results indicated that the different ways in which people use music are significantly related to their established personality traits. A person's typical intellectual engagement was significantly related to their music recognition and preference ratings. People with the personality trait of openness were also more likely to listen to music in this cognitive fashion. They also found that

people with high neuroticism were more likely to listen to music for emotional and mood regulations were people low in extraversion. Chamorro-Premuzic, Swami, Furnham, and Maakip (2009) replicated this study with Malaysian University students and found again that Neurotic individuals were more likely to use music for emotional regulation. Extraverts were more likely to use music as a background or distraction. People high in the personality trait of openness to experience had a positive relationship with cognitively listening to music but unlike, their previous study, extraversion was positive, not negatively related to the use of music for emotional regulation and conscientiousness was not linked to emotional regulation.

Although previous studies have shown that females tend to respond more emotionally to music than men, none have examined gender and music preference in the direction of these 14 music genres: alternative, blues, classical, country, electronica/dance, folk, heavy metal, rap/hip-hop, jazz, pop, religious, rock, soul/funk, and soundtracks which is categorized into four music dimensions- Reflective/Complex dimension (blues, jazz, classical, and folk); Intense/Rebellion dimension (rock, alternative, and heavy metal); Upbeat/Conventional dimension (country, soundtrack, religious, and pop); Energetic/Rhythmic dimension (rap/ hip-hop, soul/funk, and electronic/dance) to determine preference by male or female gender. This study is anchored on Murrock and Higgins's (2009) music, mood and movement theory which provides cross-cultural prescriptions for music as an intervention to initiate, promote and maintenance of physical activity.

The purpose of this study is to investigate whether personality and gender differences will predict music preference among undergraduates and explore how personality matches a category of music to improve patients' self-regulation.. Based on the literature regarding personality and music preference, we hypothesized that: 1). There will be a significant relationship between personality traits (Extraversion, Neuroticism, Openness, Conscientiousness, and Agreeableness) and music preference; 2). There will be a significant Gender difference in each of the music preference dimensions.

METHODS

Participants

Participants of this study were drawn from across different halls of residence of the undergraduates; they were all full-time students undergoing a degree program at the University of Lagos. They comprise three hundred and six (306) male and female students selected from the 11 halls of residence of the University of Lagos main campus Akoka. These Halls were drawn using balloting and the rooms were selected by using any room that fell on the odd number i.e. rooms with number 1,3,5 7, and so on were selected. The participants in each room are also chosen using ballot papers marked yes and no those that picked yes were selected for the study. The Age of the participants ranged between 16 and 26 with a mean age of 18.8 and a standard deviation of 1.96 years. The ethnicity of the participants comprises of Belyelsa, Bini, Delta, Edo, Esan, Fulani, Hausa, Ibibio, Igala, Igbo, Igede, Itsekri, Jukun, Nembe, Kalabari, Kanuri, Tiv, Urhobo, Warri, Yankarai and Yoruba respectively forming a sample representing ethnic groups across Nigeria.

Instrument

The Nigerian Adapted version of the Big Five Personality Inventory (BFI) by Omoluabi (2002) was used to measure personality variables. It is an adaptation of the original Big Five Inventory (BFI) developed by Costa and McCrae (1992). The BFI is a 44-item inventory on a five-point Likert scale ranging from 1- 'strongly disagree' to 5- 'strongly agree' format which assesses personality from a five-dimensional perspective. The essence of the perspective is that personality characteristics can be resolved into five broad dimensions which are distinct from one another. They include (a) Extraversion: high energy and activity level, dominance, sociability, expressiveness and positive emotions. (b) Agreeableness: Pro-social orientation, altruism, tender mindedness, trust, and modesty. (c) Conscientiousness: Impulse control, task orientation, goal-directedness. (d) Neuroticism: anxiety, sadness, and nervous tension and (e) Openness to experience: it exemplifies the breadth, depth, and complexity of an individual's mental and experiential life. Psychometric Properties**:** John, Donahue & Kentle (1991) provided the original psychometric properties for American samples while Umeh (2004) provided the properties for Nigerian samples. Reliability**:** the coefficients of reliability provided by John et al. (1991) are: Cronbach Alpha .80 and 3-month test-retest .85. Validity: BFI has to mean a convergent validity coefficient of .75 and .85 with the Big Five Instruments authored by Costa & McCrae (1992) and Golberg (1992) respectively. The divergent validity coefficients obtained by Umeh (2004) with University Maladjustment Scale (Kleinmuntz, 1961) are Extraversion .05, Agreeableness .13, Conscientiousness .11, Neuroticism .39 and Openness .24.

Short Test of Music Preference [STOMP] by Rentfrow and Gosling (2003) was used to assess for music preference. It is made up of 14 music genres: alternative, blues, classical, country, electronica/dance, folk, heavy metal, rap/hip-hop, jazz, pop, religious, rock, soul/funk, and soundtracks. Preference for each genre is rated on a 7-point Likert-type scale with endpoints at 1 (strongly dislike) and 7 (strongly like) to which participants were asked to indicate their level of preference for the genre listed. The music dimensions assessed were Reflective/complex, Edgy/Aggressive, Energetic/Upbeat and Conventional/Simple with test-retest reliability of 77, .80, .89, and .82 for the Reflective and Complex, Intense and Rebellious, Upbeat and Conventional, and Energetic and Rhythmic dimensions respectively.

Procedure

The study was carried out within seven weeks. The researchers sought and obtained permission through the department of student's services of the University of Lagos to conducts the study in the Halls of the residents, the hall supervisors were also notified to allow the researchers access to the student's rooms. The students were met in their rooms, the researchers and the research assistants introduced themselves to the students, explained the purpose of the study to them after creating rapport with students and obtained their consent to participate in the study. The researchers brought the ballot paper containing "YES" and "NO" only those that picked the "YES" were selected to participate in the research, the instruments were administered to them in their rooms and it was retrieved immediately after completion. The participants were debriefed immediately after the study.

Design and Statistics This study adopted the cross-sectional research design and linear Regression was used for data analysis using version 20 of IBM SPSS

RESULTS

Table 1: Frequency table showing the Gender, Age and Ethnic distribution of participants

VARIABLE	FREQUENCY	PERCENTAGE
GENDER		
MALE	154	50.3
FEMALE	152	49.7
TOTAL	306	100
AGE DISTRIBUTION		
≤ 17 YEARS	84	27.5
18 – 20 YEARS	189	61.8
≥ 21 YEARS	33	10.8
MEAN AGE	18.8	SD = 1.96
ETHNIC DISTRIBUTION		
IGBO	107	35
HAUSA/FULANI	22	7.2
EDO/DELTA	20	6.5
YORUBA	107	35
OTHERS	50	16.3

Participant Characteristics

Table 1. Shows that a total of 306 undergraduates participated in the study. One Hundred and Fifty-four (50.3%) are Male while 152 (49.7%) are Female, participants aged below 17 years are 84 (27.5%), 18 – 20 years are 189 (61.8%) and participants aged 21 and above are 33 (10.8%). 107 (35%) of the participants are Igbo, 22 (7.2%) are Hausa/Fulani, 20 (6.5%) are Edo/Delta, 107 (35%) are Yoruba, 50 (16.3%) represent others.

Table 2: Showing Correlation Table of Personality Traits and Music Dimension.

Variables	1	2	3	4	5	6	7	8	9
1. Extraversion	1					.			
2. Agreeableness	.507**	1					.		
3. Conscientiousness	.389**	.490*	1						.
4. Neuroticism	.437**	.326**	.351**	1	.			.	
5. Openness	.474**	.365**	.386	.377**	1	.			
6. Reflective	.272**	.058	.103	.176**	.326**	1			.
7. Aggressive	.170**	.110	.123*	-.032	.240**	.268**	. 1		
8. Energetic	.189**	128*	.151**	.135*	.271**	.264**	.645**	1	
9. Conventional	.129*	.041	.148**	.063	.247**	.422**	.361**	.373**	1

****. Correlation is significant at 0.01.** ***. Correlation is significant at 0.05**

Personality Traits and Music Dimension

The result in Table 2 shows that: a). Extraversion had significant positive correlation with Reflective (r=.272; p>0.01), Aggressive (r=.170; p>0.01), Energetic (r=.189; p>0.01), Conventional (r=.129; p<0.05) music dimensions. This means that the higher one scores on the extroversion scale the more inclined one would be inclined to reflective, aggressive, energetic and conventional music dimension. Individuals who display high emotional expression, assertiveness, excitability, chattiness, and friendliness will due to their nature prefer a wide range of genres from all four music dimensions. b). Agreeableness had a significant positive correlation with only Energetic (r=.128; p<0.05) music dimension. Correlation results for agreeableness revealed that the higher the score of a participant on the agreeableness scale the more inclined the person would be to energetic music dimension, that is, individuals who display affection, trust, selflessness, kind-heartedness, and prosocial behaviors will more likely prefer music genres under the energetic music dimension. c). Conscientiousness was found to have significant positive correlations with Aggressive (r=.123; p<0.-05), Energetic (r=.151; p>0.01) and the Conventional (r=.148; p>0.01) music dimensions. This suggests that the higher the score of a participant on the conscientiousness scale the more inclined the individual would be to the aggressive, energetic and conventional music dimension, hence, individuals who display thoughtfulness, impulse control, goal-directed behavior, determination, and

self-discipline will due to their nature prefer a wide range of genres from the aggressive, energetic and conventional music dimension. d). Neuroticism had significant positive correlation with Reflective (r=.123; p>0.01) and Energetic (r=.151; p<0.05) music dimensions only. This illustrates that the higher the score obtained by a participant on the neurotic scale the more likely the participant would prefer genres from the reflective and energetic music dimension, that is, neurotic individuals who are characterized by downheartedness, anxiety, susceptibility, rage, emotional instability, gloom and cantankerousness attribute will due to their nature prefer genres from the reflective and energetic music dimension. e). Finally, Openness had significant positive correlation with Reflective (r=.326; p>0.01), Aggressive (r=.240; p>0.01), Energetic (r=.271; p>0.01) Conventional (r=.247; p>0.01) music dimensions. This means that the higher the score of participants on the openness scale the more inclined the participants would be inclined to reflective, aggressive, energetic and conventional music dimensions. Openness had the highest correlation with all four-music dimensions. Open individuals characterized by having a broad range of interests as well as being emotional, adventurous, curious, and imaginative. It is therefore not surprising due to their nature that they would prefer a wide range of genres from the entire music dimension including reflective, aggressive, energetic and conventional.

Table 3: Independent t-test showing gender difference and music dimensions

	Male			Female			95% CI for Mean		
Variable	**M**	**SD**	**n**	**M**	**SD**	**n**	**Difference**	**t**	**df**
Reflective	12.039	3.797	154	11.757	3.704	152	-.561 to 1.126	.65	.304
Aggressive	10.370	3.430	154	10.059	3.095	152	-.424 to 1.046	.832	.304
Energetic	14.961	4.103	154	14.474	4.412	152	-.471 to 1.446	1.001	.304
Conventional	10.209	3.100	154	10.270	2.835	152	-.730 to .606	.1	.304

Gender Differences and Music Dimension

The result in Table 3: Shows the independent t-test carried out to examine the gender difference between males and females on their preference in music using the music preference dimensions. a). The Results for Gender difference for Reflective Music shows that Males were 154 (SD=3.797 df =.304; p>.05), Females 152 (SD=3.704, df= .304; p>.05) and t-observed (304) =.659 had no significant difference on Reflective Music. The magnitude of difference in the mean (mean difference=.2824, 95% CL=-.561 to 1.126) was very small (eta squared=0.001). b). Results for Gender difference for Aggressive music shows that there were 154 Males (SD= 3.430, df=.304; p>.05), and 152

Females (SD= 3.095, df=.304; p>.05) and t-observed (304) =.832 had no significant difference on Aggressive Music. The magnitude of difference in the mean (mean difference=.3109, 95% CL=-.424 to 1.046) was very small (eta squared=0.002). c). Results for Gender difference for Energetic music shows that there were 154 Males (SD=4.103, df=.304; p>.05), and 152 Females (SD=4.412, df=.304; p>.05) and t-observed (304) =1.0001had no significant difference on Energetic Music. The magnitude of difference in the mean (mean difference=.487, 95% CL=-.471 to 1.446) was very small (eta squared=0.003). d). Results for Gender difference for Conventional music shows that there were 154 Males (SD=3.100, df=.304; p>.05), and 154 Females 152 (SD=2.835, df=.304; p>.05) and t-observed (304) =-.182 had no significant difference on Conventional Music. The magnitude of difference in the mean (mean difference=-.0619, 95% CL=-.730 to .606) was very small eta squared = (-0.0001). On the overall analysis of gender and music dimension, the result indicates that there is no significant difference in music preference between males and females on the Reflective, Aggressive, Energetic and Conventional music dimension.

DISCUSSION

The study focused on Undergraduates students of the University of Lagos, Akoka, Lagos State, Nigeria. It was aimed at examining gender and personality as predictors of music preference amongst these students. With music considered as playing a prominent role in recreation, leisure and religion activities, it is crucial that it can be worked upon to help the healing process of some disorders to improve quality of life of individual with psychological challenges. The result of the study found that personality has a significant positive relationship with music preference (Extraversion, Neuroticism, Openness, Conscientiousness, and Agreeableness), Rentfrow and Gosling (2003) argued that people's music preferences are selected by how music reinforces their dispositions.

Extraversion: Results revealed that there is a significant positive correlation between extraversion and the entire music dimension (Aggressive, Energetic, Conventional and Reflective). This correlation then could be explained by extraverts enjoying energetic and rhythmic music as extraverts have lower resting levels of arousal and higher levels of sensation than introverts and so listening to energetic and rhythmic music might satisfy their needs better than other types of music as it is emotionally arousing music that is fast pace and grabs their attention (Chamorro-Premuzic &Furnham, 2007, Dollinger, 1993). Rawlings and Cincarelli (1997) study showed that people with a wide breadth of preference showed traits of being agreeable, open and extraverted

Agreeableness: Results show that there is a significant positive relationship between Agreeableness and the Energetic Music dimension but no significant relationship was found with the Reflective, Aggressive and Conventional Music dimension. As stated earlier Rawlings and Cincarelli's (1997) study showed that people with a wide breadth of preference showed traits of being agreeable, open and extraverted. Desling and Engels (2008 found that adolescents who enjoy rap/hip hop had high extraversion and agreeableness scores and similar results were obtained for the pop and dance categories

Conscientiousness: Result shows that there is a significant positive relationship between Conscientiousness and the Aggressive, Energetic and Conventional Music dimension but no significant relationship was found with the Reflective Music dimension. George, Stickle, and Rachid (2007) conducted another study where they had a sample of 358 Canadian college students fill out measures of the BFI and the S.T.O.M.P music preference scale to replicate parts of Rentfrow and Gosling's study with a community rather than an undergraduate sample. Energetic and conventional music dimension was positively correlated to higher levels of conscientiousness with their study. Desling and Engels (2008), who furthered previous research by using Dutch participants for the first time which helped validate and generalize the previous findings. Their results revealed that adolescence who enjoyed listening to Aggressive and Rebellious music tended to score relatively high on conscientiousness. Zweigenhaft (2008), looked at the relationship between music preference and personality using the S.T.O.M.P scale developed by Rentfrow and Gosling (2003) and his results echoed Rentfrow and Goslings results for the upbeat and conventional music dimension, which correlated with extraversion, agreeableness, openness, and conscientiousness.

Neuroticism: Result shows that there is a significant positive correlation between Neuroticism and the Reflective and Energetic Music dimensions. No significant relationship was found with the Conventional and Aggressive Music dimension. Chamorro-Premuzic and Furnham (2007). found that people with high neuroticism were more likely to listen to music for emotional and mood regulations and this is provided by genre of music under the Reflective and Energetic dimension.

Openness: Results show that there is a significant positive relationship between Openness and the Reflective, Aggressive, Energetic and Conventional Music dimension. One association appears to be, if not universal, at least present in every country that has so far been studied, and that is the positive relationship between openness and liking Reflective, Energetic and Conventional music. This has been documented in the United States (Rentfrow & Gosling, 2003; Zweigenhaft, 2008), Canada (George et al., 2007; Miranda & Claes, 2008), The Netherlands (Delsing et al., 2008), Germany (Langmeyer et al., 2008), Brazil (Pimentel and Donnelly, 2008), among others, and now in the present study, in Japan. Previous research supports that there is a positive correlation between people who score high in the openness to experience personality facet and a preference for reflective music (Dollinger, 1993; George et al 2007; Langmeyer et al 2012; Rawlings and Cincarelli, 1997; Rentfrow and gosling 2003). One explanation for this correlation could be that participants who were open to experiences enjoyed the novelty and originality of the complex and reflective music dimension (Chamorro-Premuzic & Furnham, 2007). There has been substantial research stating that there is a relationship between Aggressive and rebellious music dimension and the openness to experience personality measure (Desling& Engels, 2008; Dollinger, 1993; George et al 2007, Langmeyer et al 2012; Rentfrow & Gosling, 2003) and this corresponds with the results of the current study.

The results gotten also reveals that there is no significant gender difference in any of the Music preference dimension. This result did not agree with the results of previous studies from different researchers. Several studies have demonstrated

differences between male and female listeners' music preferences (Colley, 2008; North & Hargreaves, 2007; O'Neill, 1997), suggesting that systematic gender differences in music preferences are based on gender-role socialization into male toughness and female emotionality. Female listeners also use music more frequently to fulfill emotional needs (North et al., 2000) It can be argued that discrepancies being reported in this research about the underlying dimensions of music preferences, and the associations between music preferences and gender from the pioneering work done by Rentfrow and Gosling (2003) might have been a result from the cross-cultural differences (Chamorro-Premuzic, Swami, Furnham, and Maakip, 2009).

Several factors might have accounted for the results, however, one factor that standout is the diversity of culture. Nigeria is a multi-ethnic and multi-culture environment as result of which is music is use for different reason in the various cultures. Therefore, music preference can be said to be a function of culture, religion, activity or event and everyday experience which play a role in the development of personality rather than gender.

Limitations

One of the limitations this study faced was the reliance on only self-report of music preference which may differ from the actual music preference in real life. This limitation is compounded by the fact that the participants filled and completed the questionnaire in one sitting and the results cannot be verified across a longitudinal study.

Implication

Music Scholars, lovers, and specialist should develop a framework of partnering with Psychologist, Psychotherapist, Counsellors and various human behaviour experts in this part of the world to come up with a more detailed and elaborate research and discovery on how music can serve as a form of therapy in psychological distress to boost mental health when infused into intervention plans since it has been established that certain personality have affinity to certain types of music genre.

Recommendation

Future research is encouraged in the direction of how music preference changes and how it develops at infancy through adolescence into late adulthood, that is, the stability of music preference over one's life span. Researchers can also build on this foundation but using a wider array of music genres and exploring music across one's lifespan or generations.

Conclusion

The study carried out among undergraduate students in the University of Lagos and its sought to examine gender and personality as predictors of music preference, it can be concluded that there is a significant level of relationship amongst the Big Five Personality Traits and Music Preference, It can also be said based on findings that Personality alone and not Gender can act as a predictor of Music Preference, even though the results did not completely tally with works of other researchers, it is believed that this incongruence might be attributed to cross-cultural difference i.e. western versus non-western samples. Also characterizing people solely by their music preference may lead to

inaccurate assessment because people are unique and different.

References

Bunt, L. (1994). *Music therapy: An art beyond words*. London: Routledge.

Butcher, J. N. (2009). *Oxford handbook of personality*. New York. Oxford University Press.

Cattell, R. B., & Saunders, D. R. (1954). Musical preferences and personality diagnosis: I. A factorization of one hundred and twenty themes. *Journal of Social Psychology, 39*(1), 3–24.

Cattell, R. B., & Stice, G. E. (1957). *The sixteen personality factors questionnaire*. Champaign, IL: Institute for Personality and Ability Test

Chamorro-Premuzic, T., Furnham, A., & Lewis, M. (2007). Personality and approaches to learning predict preference for different teaching methods. *Learning and Individual Differences, 17*, 241–250.

Chamorro-Premuzic, T., Swami, V., Furnham, A., & Maakip, I. (2009). The Big Five personality traits and uses of music: A replication in Malaysia using structural equation modelling. *Journal of Individual Differences. 17*, 342-354

Cleridou, K., & Furnham, A. (2014). Personality correlates of aesthetic preferences for art, architecture, and music. *Empirical Studies of the Arts, 32*(2), 231–255.

Colley, A. (2008). Younger people's musical taste: Relationship with gender and gender-related traits. *Journal of Applied Social Psychology, 38*, 8, https://doi.org/10.1111/j.1559-1816.2008.00379.x

Costa, Jr., P. T., Jr & McCrae, R. E. (1985). *The NEO personality Inventory Manual*. Odessa, FL: Psychological Assessment Services.

Costa, Jr., P. T. & McCrae, R. E. (1985). *The NEO inventories*. Neo PI-R, Professional Manual.

Davis, K. M. (2010). Music and the expressive arts with children experiencing trauma. *Journal of Creativity in Mental Health, 5*(2), 125-133, DOI: 10.1080/15401383.2010.485078

DuBois, P. H. (1970). *The history of psychological testing*. Boston: Allyn & Bacon

Desling, M., Ter Bogt, T., Engels, R., & Meeus, W. (2008). Adolescents' music preferences and personality characteristics. *European Journal of Personality, 22*(2), 109-130. DOI**:** https://doi.org/10.1007/978-3-319-33228-4_182

Dolinger, J.S. (1993). Research note: Personality and music preference: Extraversion and excitement seeking or openness to experience? *Psychology of music, 21*(1), 73-77

George, D, Stickle, K., Rachid, F., & Wopnford, A. (2007). The association between types of music enjoyed and cognitive, behavioural,

and personality factors of those who listen. *Journal of Psycho-musicology*. *19*(2), 32-56.

Goldberg, L. R. (1992). The development of markers for the Big-Five Factor structure. *Psychological Assessment, 4*, 26–42.

Hathaway, S. R., & McKinley, J. C. (1940). "A Multiphasic Personality Schedule: I. Construction of the schedule. I249–254. *(PDF) Of Psychometric Means: Starke R. Hathaway and the Popularization of the Minnesota Multiphasic Personality Inventory*. Available from: https://www.researchgate.net/publication/272366387_Of_Psychometric_Means_Starke_R_Hathaway_and_the_Popularization_of_the_Minnesota_Multiphasic_Personality_Inventory [accessed May 11 2020].

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory--Versions 4a and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.

Kleinmuntz, B. (1961). The college maladjustment scale (MT): Norms and predictive validity. *Educational and psychological measurement: 21*(4), 209-221

Langmeyer, D. B. (2008). *Developing evaluation questions*. Retrieved February 15, 2008 from: http://www.archrespite.org/archfs13.html

Langmeyer, A., Guglhör-Rudan, A., & Tarnai, C. (2012). What do music preferences reveal about personality? A cross-cultural replication using self-ratings and ratings of music samples. *Journal of Individual Differences, 33*(2), 119–130. https://doi.org/10.1027/1614-0001/a000082

McFerran K., Roberts, M., & O'Grady L. (2010). Music therapy with bereaved teenagers: A mixed methods perspective. *Death Studies*: *34*(6), 541-565. DOI: 10.1080/07481181003765428.

McIntyre, J. (2009). Interactive family music therapy: Untangling the system. *The Australian and New Zealand Journal of Family Therapy. 30*(4), 260-268.

Merriam-Webster Collegiate Dictionary (2018). https://www.merriam-webster.com/

Miranda, D., & Claes, M. (2008). Personality traits, music preferences and depression in adolescence. *International Journal of Adolescence and Youth, 14*(3), 277–298. https://doi.org/10.1080/02673843.2008.9748008

Murrock, V. & Higgins, P. A. (2009). The theory of music, mood, and movement to improve health outcomes. *Journal of Advanced Nursing*. 65 (10), 2249-2257.

North, A. C. & Hargreaves, D. J. (2007). Lifestyle correlates of musical preference: Media, leisure time and music. *Psychology of music: 35*, 1, 58-87

North, A. C., Hargreaves, D. J. & O'Neill, S.A. (2000). The importance of music to adolescents. *British Journal of Educational Psychology: 70*, 255-272

Omoluabi, P. F. (2002). *Impact of parenting style and family relation on the development of psychopathy*. Department of Psychology, University of Lagos

Pinmentel, C. E. & Donnelly, E. D. O. P. (2008). The relation between music preference and the big five personality traits. *Psicologia: Ciência e Profissão*. *28*(4), 696-713. http://dx.doi.org/10.1590/S1414-98932008000400004.

Rawlings, D., & Ciccarelli, V. (1997). Music preference and the five-factor model of the NEO Personality Inventory. *Psychology of Music*, *25*(2), 120-132. doi:10.1177/0305735697252003

Rawlings, D., Barrantes I Vidal, N., & Furnham, A. (2000). Personality and aesthetic preference in Spain and England: Two studies relating sensation seeking and openness to experience to liking for paintings and music. *European Journal of Personality, 14*(6), 553–576.

Rentfrow, P. J., & Gosling, S. D. (2003). The do re mi's of everyday life: The structure and personality correlates of music preferences. *Journal of Personality and Social Psychology, 84*(6), 1236–1256. https://doi.org/10.1037/0022-3514.84.6.1236

Rentfrow, P. J., & Gosling, S. D. (2006). Message in a ballad: The role of music preferences in interpersonal perception. *Psychological Science*; *17*(3), 236–242. https://doi.org/10.1111/j.1467-9280.2006.01691.x

Rentfrow, P. J., & Gosling, S. D. (2007). The content and validity of music-genre stereotypes among college students. *Psychology of Music*, *35*(2), 306–326. https://doi.org/10.1177/0305735607070382.

Rorschach, H. (1921/1942). *Psychodiagnostics* (5th ed.). Berne, Switzerland: Verlag Hans Huber. (Original work published 1921).

Rosner, R., Kruse, J. & Hagl, M. (2010). A meta-analysis of interventions for bereaved children and adolescents. *Death Studies*, *34*(2), 99-136. DOI: 10.1080/07481180903492422.

Thaut, M. H., Kenyon, G. P., Schauer, M. L. & McIntosh, G. C. (1999). The connection between rhythmicity and brain function. *IEE Engineering in Medicine and Biology Magazine, 18*(2), 101-108

Umeh, C. S. (2004). *The Impact of personality characteristics on student's adjustment on campus.* Unpublished Ph.D. Research Monograph, Department of Psychology, University of Lagos.

Vella, E. J., & Mills, G. (2017). Personality, uses of music, and music preference: The influence of openness to experience and extraversion.

Psychology of Music, Vol. 45(3) 338-354

Zweigenhaft, R. L. (2008). A do re mi encore: A closer look at the personality correlates of music preferences. *Journal of Individual Differences, 29*(1), 45-55, DOI: 10.1027/1614-0001.29.1.45