

A Solace in Difficult Times: Engagement with Music and Its Impact on Experienced Distress, Flow States, And Life Satisfaction among Musicians & Non-Musicians

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ABSTRACT

A purely abstract form of art, Music is devoid of any language or explicit ideas. When listening to our favorite songs, we often experience chills down our spine, and our body betrays all symptoms of emotional arousal. Even though it says little, music still manages to touch us deeply, stirs us at our very roots. How instantaneous the impact of music is not a fact unbeknownst to us, but the research on such impacts has been heavily focused on contrasting the skills of musicians and non-musicians. The current research attempts to refurbish the impact music has on the experience of psychological distress, flow state, and life satisfaction by decoding the influence of various styles of Engagement with Music. For this purpose, a research sample of 35 Musicians and 35 non-musicians was taken, aged 25-40 (N=70). Standardized scales were used to assess engagement with music, psychological distress, experienced flow states, and life satisfaction. The results from the data indicated that musicians experienced less psychological distress as compared to non-musicians. Key facets of Engagement with Music, i.e., cognitive and emotional regulation, engaged production, physical exercise, and social connection, were also found to be higher in Musicians. A negative correlation between Engagement with Music and Psychological distress and a positive correlation between Engagement with Music and experience of flow states and life satisfaction could be noted. These findings, along with the already existing evidence of music as a therapeutic tool, establish grounds for assimilation of music into health interventions and makes it salient that the inherent values of music are not overlooked or underestimated.

Keywords: *Music engagement, Psychological distress, Life satisfaction, Flow states*

“Music can change the world.”

- Ludwig van Beethoven, 1770

Only a few would disagree with the statement as mentioned above, given by one of the most celebrated pianists and composers of all times. Music indeed holds the potential to change lives and serves several purposes (Schäfer & Sedlmeier, 2009).

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However, what does it truly mean to say that "music can change the world"? To scrutinize more into the question, it becomes imperative to empirically investigate Music's effect on psychological functioning and the potential benefits it holds for those who engage with it.

Homo-sapiens' engagement with music has a fascinating history, with musical instruments dating back to 40,000 years being discovered and the importance of music being referenced in the ancient writings of scholars Plato and Aristotle. (Conard, Malina, Munzel, & Seeberger, 2009). The philosopher and mathematician Pythagoras's claim that inherent values attached to music could be harnessed to reinstate harmony to the human mind, soul, and body served as a bedrock for the practice of music therapy and medicine (Thaut, 2005). Their theories on the healing qualities of music and its influences on both animals and humans are finally coming to shape and affect the modern world of medicines (Alex, 2014). An extremely complex and engaging multisensory activity (Münste, Altenmüller, & Jäncke, 2002) based on an interdependent process of music reception and production (Elliott, 1995), engagement with music has been linked to cognitive, emotional, and social benefits. (Chin & Rickard, 2012). It is these numerous functions and values attached to music that retain their significance in modern times. One of these many functions can be psychological distress regulation. Distress can be a central facet in various mental issues, and engagement with music as a coping mechanism is likely to help patients healthily overcome distress. (Wood, 2015) Listening to music has been shown to lessen psychological distress and enhance well-being for both older adults (Laukka, 2006) and younger adults (Miranda & Gaudreau, 2011; Saarikallio, 2011). A salient component of well-being is a sense of satisfaction with one's life along with a greater ratio of positive to negative emotions. Music has not only been shown to induce positive emotions and regulate negative affect (Wood, 2005) but also is positively associated with and is a potential strategy to improve life satisfaction. (Krause et al., 2021).

Life satisfaction is also partly enhanced by frequent experiences of flow states. (Olčar et al, 2019). Experience of flow, also known colloquially as being in the zone, is an optimal state ascertained by one's perception of high challenge and high skill for a stated task (Custodero, 2005). If the challenge level surpasses the skill level, it can become a source of anxiety, while the opposite can lead to boredom. (Yoshida et al., 2013)

According to Compton (2005), flow states in music can facilitate peak performances; a moment when a person engaging with music performs in a way that's more efficient and creative, and in some ways, surpasses the standard performance. The features of peak experiences, especially flow-like states of consciousness and a negation of self-consciousness, imply that music may enhance engagement in valued pursuits. (Groarke, 2017)

Music Engagement

Engagement is described as the connection between a person and a task of interest. (Russell, Ainley, & Frydenberg, 2005). It shows an active participation or involvement of a person in an activity (Reeve, Jang, Carrell, Jeon, & Barch, 2004). Engagement is also defined as an intellectual or emotional adherence to an activity (Saks, 2006) or a state of being that concurs with the presence of dedication, vigor, and absorption (Maslach, Schaufeli, & Leiter, 2001; Schaufeli & Bakker, 2004; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002).

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Music engagement can be explicated as a person's level of active participation in music activities, appraised by the regularity and frequency of participation, along with the value attached to it (Chin & Rickard, 2012).

Uses of Music can be categorized as for cognitive, affective, social, or physical purposes (DeNora, 2000; Hargreaves & Colman, 1981; Hargreaves & North, 1999; Sloboda, O'Neill, & Ivaldi, 2001). In a study conducted by Gupta et al. (2018), an enhancement in cognitive performance as a direct consequence of listening to music was found. Neuroimaging studies have also demonstrated activation in the brain as a result of Music listening, which goes well beyond the auditory cortex to areas involved in executive function and memory (Chin & Rickard, 2012). Another study revealed that verbal memory performance could be anticipated by the frequency and duration of Music listening (Chin & Rickard, 2010), indicating that extended listening can sharpen verbal processing abilities.

Listening to Music is also often cited as a valuable means to regulate emotions, a primary reported reason for listening to Music (Sloboda, 2010). According to Gross (1998), emotional regulation encompasses methods and ways people use to regulate their emotions, and music is amongst the most powerful tools to induce intense spiritual (Gabrielsson, 2011), emotional experiences and is used by a number of individuals as a tool to manage emotions (Saarikallio & Erkkila, 2007).

Another salient function of Music is social communication. Music brings forth opportunities for social interaction, common examples of which are being part of bands, choirs, or attending concerts. (Chin & Rickard, 2010). Cunningham, Jones, and Jones (2004) reported that sharing of personal music collections with family and friends are, in fact, sharing of an experience that has been emotionally or intellectually significant, an opportunity for strengthening bonds between friends, or a chance to broaden one's musical horizons.

Music, other than being a part of the auditory system, also involves the motor and somatosensory systems (Wallin et al., 1998), an example of which could be dancing, which involves the amalgamation of movement and music, allowing people to express themselves. It is also used in exercise to reduce the perception of fatigue and has been found to exert considerable effects on exercise endurance. (Copeland & Franks, 1991; Karageorghis, Terry, & Lane, 1999; Nethery, 2002; Potteiger, Schroeder, & Goff, 2000).

Psychological Distress

Psychological distress, as defined by Mirowsky and Ross (2002), is "a state of emotional suffering characterized by symptoms of depression (e.g., hopelessness, sadness, loss of interest) and anxiety (e.g., feeling tense, restlessness)." These symptoms may concur with somatic symptoms that may vary across cultures (Kleinman 1991, Kirmayer 1989).

Tenants of the stress-distress model claim the characterizing features of psychological distress to be "an exposure to a stressful event that threatens the mental or physical health, the inability to cope effectively with this stressor and the emotional turmoil that results from this ineffective coping" (Horwitz, 2007; Ridner, 2004).

According to Alex (2014), Music can be used as a tool to enhance a positive psychological state, keeping anxiety and depression (key determinants of psychological distress) at arm's length. This can further aid in preventing stress response from taking over the body, keeping

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optimism and creative levels elevated. In addition to this, modern research has posited Music's psychotherapeutic benefits (Maratos et al., 2008) as engaging with slow, quiet classical music has shown to lower stress levels (Labbe et al., 2007).

Life-satisfaction

Life satisfaction is a holistic assessment of a person's quality of life according to her/his own settled criteria of success (Shin & Johnson, 1978). According to Buetell (2006), "Life Satisfaction is an overall evaluation of attitudes and feelings about one's life at a particular point in time ranging from negative to positive." Diener, Suh, Lucas, & Smith (1999) also include under life satisfaction, the desire to change one's life, satisfaction with past and the future, and significant other's views of one's life.

The experience of flow states (Nakamura and Csikszentmihalyi, 2009), peaks (Maslow, 1968), and chills (Panksepp, 1995), which are often elicited by music listening, may be translated into forms of transcendence and escapism (Aldridge, 2006) which has been well associated with benefits such as meaning and happiness (Beaumont, 2005), an increased life satisfaction in adolescents (Gillham et al., 2011), and reduced loneliness in older adults (Walton, Shultz, Beck, & Walls, 1991)

Flow states

Flow is "the holistic experience people feel when they act with total involvement" (Csikszentmihalyi, 1975). When in flow, a person displays an utmost capacity at a controllable level of performance and experiences an intrinsic reward (Nakamura & Csikszentmihalyi, 2002).

Flow is also described as a "psychic compass orienting psychological selection and supporting the developmental trajectory each individual autonomously builds and follows throughout life" (Massimini & Delle Fave, 2000; Delle Fave, 2013)

The concept of flow, first introduced by Mihaly Csikszentmihalyi, shares many of its key constructs with peak performances and peak experiences (Privette, 1983; Privette & Bundrick, 1981), which according to Abraham Maslow, are the transient episodes of self-actualization. According to Maslow (1968), music and sex were the two most reliable techniques to bring about these experiences.

Because flow is a multifaceted concept, two flow dimensions: fluency of performance and absorption by activity, are also taken into account. (Engeser & Rheinberg, 2008). Gouzouasis (2005) described fluency as the ability that all humans have to create, i.e., compose, produce, perform arts media, and is defined by a creative expression. (Gouzouasis, 2001; Gouzouasis, 2003; Gouzouasis & LaMonde, 2004). In a study by Stupacher et al. (2017), participants with extensive musical training experienced better fluency of performance.

The other dimension of flow, i.e., absorption, is an "effortless, non-volitional, deep involvement with the object of experience" (Jamieson, 2005), which is most often linked with live, intense emotional experiences of music. (Clarke & Clarke, 2018)

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Purpose

The present research aims to study the quality of musical engagement and its impact on the experience of psychological distress, flow state, and life satisfaction in Musicians and Non-musicians.

Hypothesis

- There will be no significant correlation between the quality of musical engagement and psychological distress.
- There will be no significant correlation between the quality of musical engagement and life satisfaction.
- There will be no significant correlation between the quality of musical engagement and the experience of flow states.
- There will be no significant difference in Musicians' & Non-musicians' experience of psychological distress, life satisfaction, and flow states.

METHODOLOGY

Sample

The sample under study for engagement with music was 35 Musicians and 35 Non-Musicians selected from Delhi, Gurgaon, and Noida. The age of the participants ranged from 25 to 40 years.

Measures

The standardized tests used for collecting the data were:

- **The Music USE (MUSE) Questionnaire:** The MUSE Questionnaire was developed by Chin and Rickard in 2012 to assess both the quantity and quality of music engagement. Engagement styles include Cognitive and Emotional Regulation, Engaged Production, Social Connection, Dance, and Physical Exercise. The Music Engagement Style scale has 24-items, made on a 6-point Likert scale ranging from "0" (Not at all/Not applicable to me) to "5" (Strongly agree).
- **Kessler Psychological Distress Scale (K10):** K10 Scale, developed by Kessler and Mroczek in 1992, was designed to measure the level of anxiety and depressive symptoms a person may have experienced in the past four weeks. The scale has a set of 10 questions, made on a 5-point Likert scale that ranges from "1" (None of the time) to "5" (All of the time).
- **The Flow Short Scale (FSS):** FSS is a 10-item self-report questionnaire developed by Rheinberg, Vollmeyer, and Engeser in 2003 to measure the components of flow experience. The flow items could be separated into two factors: (1) Fluency of Performance and (2) Absorption by Activity. The scale is made on a 7-point Likert scale ranging from "1" (Strongly Disagree) to "5" (Strongly Agree).
- **Satisfaction with Life Scale (SWL):** SWL Scale, developed by Diener, Emmons, Larsen, and Griffin in 1985, is a 5-item scale designed to measure overall cognitive judgments of an individual's life satisfaction (not a measure of either negative or positive affect). Participants specify how much they agree or disagree with each of the five items using a 7-point scale ranging from "1" (Strongly Disagree) to "5" (Strongly Agree).

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Procedure

The selection criteria of the participants were based on their consent and their willingness to participate. They were well informed of the voluntary nature of participation, the purpose of the research, and the provision for absolute confidentiality. A total of 70 participants volunteered to provide data for this study through Google forms. Only standardized psychological tests were administered to the participants after which, they were thanked for their time and cooperation.

RESULTS

Mean, Standard Deviation, and Correlations were calculated to discern possible relations.

Table 1: N, Mean and Standard Deviation

	Musician/Non-Musician	Life Satisfaction	Psychological Distress	Flow States	Absorption by Activity	Fluency of Performance	Cognitive and Emotional Regulation	Engaged production	Social Connection	Physical Exercise	Dance
N	Musician	35	35	35	35	35	35	35	35	35	35
	Non-Musician	35	35	35	35	35	35	35	35	35	35
Mean	Musician	23.9	22.0	47.3	19.6	27.7	30.1	37.0	13.2	12.3	4.57
	Non-Musician	22.6	26.6	46.4	20.1	26.3	26.5	14.5	11.1	10.4	3.80
Standard deviation	Musician	6.48	7.68	9.47	3.40	7.43	4.03	5.55	1.98	3.38	3.45
	Non-Musician	6.00	8.06	9.85	3.74	7.50	6.66	10.1	3.32	3.04	3.50

Table 2: Correlations between dimensions of flow, psychological distress, life satisfaction, and styles of engagement with Music.

	Life Satisfaction	Psychological distress	Flow States	Absorption by Activity	Fluency of Performance	Cognitive and Emotional Regulation	Engaged production	Social Connection	Physical Exercise	Dance
Life Satisfaction	—									
Psychological distress	-0.291*	—								
Flow States	0.632***	-0.298*	—							
Absorption by Activity	0.433***	-0.025	0.723***	—						
Fluency of Performance	0.608***	-0.372**	0.944***	0.454***	—					
Cognitive and Emotional Regulation	0.163	0.007	0.155	0.085	0.159	—				
Engaged production	0.170	-0.241*	0.241*	0.108	0.259*	0.482***	—			
Social Connection	0.219	-0.002	0.180	0.037	0.214	0.518***	0.415***	—		
Physical Exercise	0.345**	-0.291*	0.137	0.009	0.173	0.541***	0.369**	0.410***	—	
Dance	0.121	0.092	0.150	0.168	0.113	0.119	0.185	0.193	0.122	—

Table 3: Showing t-statistics

	Group	N	Mean	SD	Statistics	df	p
Life Satisfaction	Musician	35	23.94	6.48	0.899	68.0	0.372
	Non-Musician	35	22.60	6.00			
Psychological distress	Musician	35	21.97	7.68	-2.445	68.0	0.017
	Non-Musician	35	26.57	8.06			
Flow States	Musician	35	47.29	9.47	0.396	68.0	0.693
	Non-Musician	35	46.37	9.85			

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Absorption by Activity	Musician	35	19.57	3.40	-0.602	68.0	0.549
	Non-Musician	35	20.09	3.74			
Fluency of Performance	Musician	35	27.71	7.43	0.800	68.0	0.426
	Non-Musician	35	26.29	7.50			
Cognitive and Emotional Regulation	Musician	35	30.11	4.03	2.756 ^a	68.0	0.007
	Non-Musician	35	26.49	6.66			
Engaged production	Musician	35	37.03	5.55	11.575 ^a	68.0	< .001
	Non-Musician	35	14.49	10.09			
Social Connection	Musician	35	13.17	1.98	3.147 ^a	68.0	0.002
	Non-Musician	35	11.11	3.32			
Physical Exercise	Musician	35	12.29	3.38	2.452	68.0	0.017
	Non-Musician	35	10.40	3.04			
Dance	Musician	35	4.57	3.45	0.928	68.0	0.357
	Non-Musician	35	3.80	3.50			

DISCUSSION OF RESULTS

Results, through analysis of data, found out a significant negative correlation between psychological distress and engagement with Music, in particular through Engaged production ($r=-0.241$, $p<0.05$) and Physical exercise ($r=-0.291$, $p<0.05$). According to Kemper and Suzanne (2005), if carefully chosen, music can help reduce psychological distress, improve a sense of relaxation and comfort, offer a distraction from pain, and enhance clinical performance. This is further proven by results that found that Musicians experience less psychological distress as compared to non-musicians ($t= -2.445$). In addition to this, key facets of Engagement with Music, i.e., cognitive and emotional regulation ($t= 2.756^a$), engaged production ($t= 11.575^a$), physical exercise ($t= 2.452$), and social connection ($t= 3.147^a$), were also found to be higher in Musicians as compared to non-musicians.

Furthermore, results found a positive correlation between life satisfaction and engagement with Music through physical exercise ($r=0.345$, $p<0.01$), but no significant correlation could be seen with other styles of engagement with Music. According to Krause et al. (2021), recent findings, following other works on the advantages of music listening for well-being, support it as a potential approach to enhance life satisfaction, given that music is easily

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accessible at a minimal cost and is enjoyed by a more significant part of the population. (Schäfer et al., 2013).

Research (Whalen, 1997) has also suggested that musical engagement is a quintessential flow activity and the flow paradigm in music is salient as it appreciates the individual nature of musical experience unravel at the moment (John, 2006). In the results, flow states found a significant positive correlation with Engaged production, a style of music engagement ($r=0.241$, $p<0.5$). A significant positive correlation could also be seen between one of the flow dimensions, Fluency of Performance and Engaged production. ($r=0.259$, $p<0.05$).

CONCLUSION

This study aimed to assess the impact music has on the experience of psychological distress, flow state, and life satisfaction by construing the influence of various styles of engagement with Music. For this purpose, standardized scales were used to assess engagement with Music, psychological distress, experienced flow states, and life satisfaction in Musicians and Non-musicians.

The results presented in this paper indicate the possible relationship of engagement with Music with a few of its many benefits. Correlations between music engagement and psychological distress, experienced flow states, and life satisfaction are a statement that this relationship undoubtedly exists.

It may be beneficial, then, to explore further benefits of music to support well-being, especially in periods of social isolation and hardship. Additional future research might scrutinize how to best embed music listening into existing mental health interventions (de Witte et al., 2019) and better understand the variables that trigger change. This research advances to the broader body of work that aims to examine the impact of music in promoting a better life.

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Conflict of Interest

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