

Conceptual Framework on Effects of Music in Polycystic Ovary Syndrome of A Case

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Abstract

Music is a source of pleasure and creativity. In the present work an attempt to relate musical experiences with sexual suggestiveness has made in the clinical population (PCOS). The subject's personality along case history has been assessed. It is a single case research design (n=1, a female unmarried case of 32 years). 11 songs (including a background music) were judged by the subject to determine the level of suggestiveness. The songs were evaluated by the researchers (one male and one female) to know suitability of the parameters fixed in this study. Inductive analysis for creative synthesis was maintained to discover patterns in sexual behavior of the subject. Results were analyzed and discussed. Importance of mirror neurons and masturbatory guilt has been stated. Subject's behavioral changes were analyzed by researchers through online media (interface). Non pharmacological application has been emphasized to heal the patient with PCOS, a medical condition. This is a six month long pilot study. A patient oriented affordable management plan has remained the focus of the study.

Key Words: *PCOS, Sexual Suggestiveness, Single Case Research Design.*

Introduction

Music is an organized set of sounds consisting beats, melody and words. Experiencing music involves our perceptual capacity, creative capacity, and response tendency based on biochemical capacity. Music has psychological and non-psychological aspects. Music is characterized by melody, harmony, tonality, rhythm, meter and form. From psychological point of view, music is an unlearned tendency commonly known as archetype. It is our life instinct or shadow. Music thus, identifies with Anima (the female nature in men) and Animus (the male nature in women) unconsciously. Possibly these two phenomena have thought and emotion as base elements. Libido is expressed in particular by music singing or listening. We sublimate or accept rejected needs through musical experience. Music touches our unconscious layers of brain. Socially unaccepted sexual urges are expressed through music listening or singing. Roles of instincts are noted in music production. Instinct is recurring actions and reactions. So music helps to release our hunger need, sexual need and creative needs that require repeated satisfaction. Music singing or playing is used as a behavior to bring sexual suggestiveness in a social situation. Through music an undertone is given for stimulating sexual arousal. Sexually suggestive

behaviors depend on menstrual cycles, voice pitch and activity level in individuals. Music listening, ovulating phenomenon and sexually suggestive cues as undertone for arousal are associated altogether to give an erotic aspect in human gestures. Sexually suggestive signs indicate sexual maturity. Thus, it is considered by this research that music maximizes reproductive success and survival in human beings.

Music practice is done during morning. The environmental calmness positively affects the vocal cord during the morning. After sleep, the parasympathetic nervous system reaches its active form. Music carries the positive effects of this system for the rest of the day. Singing in morning raises sexually self suggestive behavior and chances of reproduction due to balanced hormonal activity. Music listening and singing releases hormones namely Dopamine, Prolactin and Oxytocin. During masturbation (alike sex or mating) levels of Dopamine also rises. Dopamine secretion is less in amount in case of depression and anxiety related disorders. Presence of a partner improves the biological changes of females in a musical environment. Musical behavior depends prominently on our imitating capacities. This copying mechanism is supported by

central and peripheral nervous system as well. Brain consists of mirror neurons in Premotor Cortex, Primary Somatosensory Cortex, Inferior Parietal Cortex, and Supplementary Motor areas. The mirror neurons form the Mirror Neuron System which plays a combination of various functions namely social cognition, language, empathy and social communications¹. The auditory system consists of the receptors in the human ear, the auditory nerve and the temporal lobe of the cerebral cortex. Music is a creative process. Creativity largely depends upon creative thinking which involves preparation, incubation, illumination, verification and elaboration². Modern Psychologists state that fantasies are creative only when they come up as products. This aspect has been considered in this paper as well. In this connection artistic personality needs to be included for elaborating the research purpose. Artistic personality starts to develop from early in life. Surroundings and persons in close contact stimulate this pattern in behavior. It reflects emotionality, sensitiveness, independence, impulsivity, socially withdrawn, introversion and non conformity³. Human sexual behavior and singing is both creative in nature. Human sexual activity implies bonding and has components of emotions just the same way music has. There is an intimate connection between vocalization and sexual activity. Copulatory vocalization occurs during sexual mating. It is a kind of voice production by females to build intimacy. Another sound is mating Call which is an auditory signal to call mates found in both male and females. In women, the Vagus nerve connects vagina and throat and affirms the vocal vaginal correlation hypothesis. Acoustic stimulation is suitable to regularize menstrual cycle as per the present research.

In one important study relation was noted among emotional responses and music⁴. Several mechanisms were emphasized namely. (1) brain stem reflexes, (2) evaluative conditioning, (3) emotional contagion, (4) visual imagery, (5) episodic memory, and (6) musical expectancy. Moreover, implications of attention in Sexual Arousal was noted which opened up the way to deal Sexual Dysfunction⁵. In a recent study, focus was on Misattribution of musical arousal for sexual attraction towards opposite-sex faces in females⁶. From the mixed sample, only women who had listened music gave significantly emphasis on facial attractiveness and dating desirability. It was not found in the silent control condition. High-arousing as well as complex music could contribute in the results. In another study

music listening was found to play a significant role in cognitive recovery and mood in patients of middle cerebral artery stroke⁷. Results revealed changes for verbal memory and focused attention in these patients. They were found in less depressed and less confused mood due to music. The music listening habit for preventing negative mood has been proved by these authors. The neural mechanisms were found contributory systems. The study showed a possibility of a presence of a suitable sound environment which contributes effectively in recovery from neural damage in human beings. In another significant research a relation was discovered between music and vocabulary⁸.

PCOS is Polycystic Ovary Syndrome found in women causing hormonal imbalance and problems in child birth. Irregular menstruation is developed by this medical condition. These female patients experience reproductive, metabolic, psychological and dermatological complications⁹. The condition is of a lifelong nature. From puberty to menopause it extends. The diagnosis is mainly medical. It is termed as an endocrinal disorder and now a days roles of Endocrinologists are found to be more apt than the Gynaecologists. It has a multifactorial etiology with combined effects of genetic and environmental factors. An excess production of androgen is the commonest feature of PCOS. The recent diagnostic criteria includes two features among the three namely Hyperandrogenism, Ovulatory Dysfunction, and Polycystic Ovarian Morphology in terms of 12 follicles of 2-9mm size in each ovary with volume of 10ml¹⁰. This illness is a reason of headache in young women. It has quite long lasting clinical manifestations as the Hypothalamic Pituitary Axis gets affected. Indeed, women start fearing heterosexual relationships and child bearing process.

Method

The present study is qualitative in approach.

- (a). song analysis by researchers
- (b). case analysis by researchers (or Clinicians)
- (c) Subject's own evaluation

Inductive analysis with creative synthesis has followed.

Objectives

To determine the creativity level in young adults

having sexual underachievement due to clinical condition PCOS.

Design

Single-case research design is context sensitive and shows individual differences. The subject serves the own control. Continuous assessment is done. In this assessment, the behavior of the individual is observed repeatedly over the course of the intervention. It involves two methods

Baseline assessment: the researcher has to look for behavioral trends.

Variability in data: Because behavior is assessed repeatedly, the single-subject design allows the researcher to see how consistently the treatment changes behavior over time.

Tools

1. Songs and background music in Indian and Western style were chosen
2. NEO FFI
3. Case History Form

Neo five factor inventory. The form S was taken. The authors of this inventory are Paul T. Costa, Jr, and Robert R. McCrae. The year of publication is 1991. It consists of five scales of 12 item. The domains are neuroticism, extraversion, openness to experience, agreeableness and conscientiousness.

Criteria for sample selection

- Songs sung in suppressed erotic connotation as subliminal stimulation
- Drumming present
- Songs sung in low to high through medium pitch
- Age and gender of singers along their secondary sexual characteristics (with or without mustache and beard, long and short hair) were evaluated by researchers to judge appropriateness to excite mildly the subject.
- Presence of sex noises and sex sounds in suppressed form
- Presentation of songs was from low exciting to highly exciting then reverse mode for six months

duration

- The subject was a female unmarried woman of 32 years under medical consultations. Individual consent was taken.
- The researchers were carefully matched for mood and musical preferences for rating the songs.
- Researchers and subject listened the songs, watched music video if available, watched the music posters.
- Listening was maintained on a recurring manner. Feelings, which come for actual human presence (real life partners), were redirected and generated by musical stimulations by a method of classical conditioning. Further, when the subject was listening the music, researchers (male and female) remain present online to provide the support as psychosexual figures. The subject indicated the specific music listening to the researchers.

Sample

Sampling Frame consists of 30 songs.

Final Sample 11 songs (drawn from sampling frame based on qualitative rating, Thurstone's Scale and mode values for the present subject)

- 1 .Ricky Martin - The Touch¹¹
- 2 Ricky Martin she bangs
- 3 Ricky Martin Mas
- 4 Ricky Martin Nada
- 5 Rihanna - We Found Love ft. Calvin Harris
- 6 Demi Lovato - Let It Go
- 7 . Sunidhi Chauhan sajna ve sajna
- 8 Alka Yagnik : Mehendi
- 9 surjo rongeen anupam roy
- 10 Justin Bieber – Baby¹²
- 11 James Bond Car chasing Spectre

Result and Discussion

Assessment of music in final sample was done by researchers. Each musical material has been assessed by two researchers in six domains. These are general

psychological aspect, sexual suggestiveness indicating trait, general feature in terms of pitch, biological feature such as voice type (arousing or calming). Other aspects are prominent instrument played and singer's personality. A consensus in judgment was incorporated. The general psychological aspects consisted of several important domains namely existential anxiety, need for self esteem, belongingness need. Songs were judged to have traits on sexual suggestiveness namely moving toward people, need for power and need for affiliation. Biological aspects identified are mild, moderate and high on masculine nature.

Another focused analysis of final study sample has been done. The analysis of music pieces in final study reveals three components. The core theme emerged is freedom while subject denoted them as having self expression. The researchers explained them as arousing. Here, frequency of judgments is considered.

Analysis of state of human subject (N=1) was done. Upon analyzing the condition of the human subject significant aspects emerged in the study. The pre music test cum therapy behavior includes depression, loneliness, low arousal, low masturbation. The post music test and therapy behaviors become vocabulary increase, improvement in creative expression, and different image selection. Positive result found through qualitative assessment of social media posts (profile picture, on time) and cheerful voice. Pre marital sexual life history was found to be enhanced, reported by regularized occurrence of self masturbation and menstrual cycle.

Case history of the subject reveals presence of PCOS with associated metabolic disorder (diagnosed by a trained and well qualified Physician). Significant medical features comprise of menstrual irregularities, hirsutism, thyroid dysfunction, and hypertension. She is under specific allopathic medication (protocol unrevealed).

The Personality assessment was done with the help of NEO FFI that showed significant shifts in results. During pre music test, scores were 28 in Neuroticism, 30 in extraversion, openness domain contains 24 score. Agreeableness domain contains 20 score and finally Conscientiousness domain reveals 30 score. Upon retesting with the same test material, during post music application scores were found different. Now the scores are 26(N), 35(E), 33(O), 32(A), and 23(C).

The present paper is based on main premises namely emergence of interpersonal need, identification of social cues and acquiring creative image. The songs reflect the following aspects.

1. Extremely high pitch (painful) singing with affirmative words is sung to alter negative thoughts.
2. Fast beat is used for opposing anxiety.
3. Voice in feminine and firm quality creates more arousal of positive thoughts.
4. Voice throw/stroke at high pitch is used for releasing tension
5. Drumming is used to combat anxiety.
6. Fear is expressed in low pitch
7. Difficult word sung in low pitch
8. Whispering voice making to provide silent cues
9. Wolf sound making and breaking of wolf sound at high pitch

Analysis of music videos of songs reveals important aspects for suggestiveness. These are darkness that stimulates the listener, open doors, seated position, and freedom that has expressed in body movements. Analysis of personal life of singers namely Ricky Martin, Taylor Swift, Demi Lovato, Justin Bieber, Sunidhi Chouhan, Alka Yagnik suggest projection of personal life in the music they created. The unresolved and unconsciously nurtured important needs are expressed through their voice and in presentation of lyrics.

The music selected for the present research has created subliminal stimulation in the subject. The thoughts, actions and feelings have been altered in the subject by the unaware and vague cues. A kind of conditioned response has been produced. The concepts such as D Love (deficiency need) and B Love (Being need) have been reflected in the responses of the subject. The lack of receiving of love (D Love) restricts the giving of love (B Love). Basic lower order needs namely biological need and safety needs are less gratified that create boundaries in achieving love and belongingness need in the subject. The result of case history analysis and personality test result (NEO5) further support this. Musical stimulation alters the mind of the subject in a positive direction. Subject's focus on aesthetic needs was redirected from materialistic needs. An atmosphere

of love created in imagination which motivated the subject. Music has given a sense of protection and a psychological concept of inside a ring (circle) in the thoughts of the subject. Masturbatory practice supports successful implication of music with subtle erotic sense in her. It actually diminishes sadistic sense and provides warmth and support. Music listening produces mild body movements which further help to develop mature sexual gestures. All the singers included in this research are psychologically retaining childlike innocence in their voice. This trait produced happiness in the behavior of the subject. Music produced mirror neuron activation and further strengthens the act of moving toward people for social bonding. Music actually helps her animus qualities to be expressed in reality along a guided imagination. The preliminary selection of music was done by the researchers based on her case history. The subject could able to reciprocate in revealing her experience as per the research plan. Raised scores in the areas such as extraversion and openness to experiences on personality assessment shows significant behavioral improvement after music listening.

Conclusion

The present research links aesthetic needs with biological domains. Because of the specific medical conditions, subject's spontaneous response to environmental stimuli delays. The association among cells fails to function in individuals. Through creativity training this delay could be handled. An appropriate level of biochemical elements namely hormones are required for sexual maturity. Music can promote sexual development for sexual maturity irrespective of chronological age. It has been assumed that making responses therapeutically for the sexual attractions is healthy and socially beneficial. However, it is the voice rather face that promotes heterosexuality.

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