

Original article

The effects of Daegeum Sanjo Rhythm (DSR) compare with Jinyang-jangdan and Jajinmori-jangdan on music therapy

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ABSTRACT

The aims of this article is to examine that Daegeum Sanjo Rhythm (DSR) compare with Jinyang-jangdan and Jajinmori-jangdan on music therapy. Daegeum has the largest range of notes in wind instruments through Korean music. Jangdan is the essential element of rhythm in Korean music. Just as human body sound and resonant with their rhyme and meters, jangdan has its own rhythms of physical structures and sequence and repeat. Jinyang-jangdan, which is close to western minor code, expresses heartbreaking grief and great mourning feeling, so it makes one feel the catharsis through that rhythm. Jinyang-jangdan of daegeum music may be slow, but it can be sublimated into grim music for human. So, people overcome the sadness through grim music. On the other hand, jajinmori-jangdan gives charm and gaiety to people and to everything. So, it is exciting that it's often performed in festival and parade. Rhythmical music is a tool to improve the well-being of humanity and increase our life choices. Therefore, music therapy surely needs both influences of daegeum sanjo music regardless of the rhythm. Because, daegeum sanjo music is nature-friendly music of the rhythm.

Keywords Daegeum sanjo rhythm (DSR), Jinyang-jangdan, Jajinmori-jangdan, Han Ak (Korean music, 韓樂), music therapy

INTRODUCTION

The human body has a number of rhythms and vibration, including those of large structures such as the heart and other organs, as well as those within individual cells. Entertainment itself happens when 2 vibrating objects come into the same vibratory pattern (Kari et al., 2010; Morris, 2009). Just as human body sound and resonant with their rhyme and meters, jangdan has its own rhythms of physical structures and sequence and repeat. German composer Stockhausen says, "a repeat is based on the physical rhythms such as heartbeat, walk, breathing.

The characteristics of Daegeum

Daegeum or Taegûm (Dae, Tae=large;-geum, gûm=blowing instrument) is a large transverse flute normally made from a length of yellow bamboo (hwang chuk) with prominent nodes. Typically, ducts run along either side of the tube between nodes (Keith, 1988). This is why taegûm plays horizontally, was also named flute, the Korean script, 'chök (David, 1991)' in the period of the Three Kingdoms. In fact, Daegeum is an extremely sensitive instrument that is hard to control. It is very finely set and has an instrument capable of a broad range of notes. Daegeum has the largest range of notes in wind instruments through Korean traditional music. Because it has a

wide range of notes, can be expressed a variety of voices. Sounds like the same instrument as another. Daegeum is a capable of the notes in three octaves from soft-'im(B b)' to loud-'whang(E b)'. A majority of the wind instruments belong to the bamboo category and all these instruments are classified as flutes, those in the bamboo category produce a thin, high-pitched tone (Hwang, 1978). Especially, reed grass of Daegeum plays an important part in the board of vibrato. The characteristic sound of the Daegeum owes much to the presence of a thin tissue-like membrane taken from the inside of a piece of bamboo or made from a reed (Keith, 1988). So, it seems to be more close to nature and human. The pure and clean voice of Daegeum sounds like sigh. Also, it's like the sound of the wind through bamboo (Kim et al., 2017).

Sanjo and Jangdan

The genre, 'sanjo' is a highly developed form of instrumental solo with folk roots (Paek-Howard, 1989). Korean sanjo is a particularly refined and restrained expression in which the arts of performance and creation are fused into one through improvisation (Song, 2000).

Jangdan is the essential element of rhythm in Korean music. Jangdan is literally meaning 'long and short.' Researcher Bang-Song Song reported jangdan also denotes organized temporal units, that is, a rhythmic cycle, composed of various patterns. The name of each jangdan serves to designate a certain type of meter, tempo, and rhythmic pattern by which it is distinguished from all other rhythmic cycle.

Jinyang-jangdan

Jinyang-jangdan is the slowest rhythm in Korean traditional music. So, it gives an impression of solemn, deep, calmness. The period of Jinyang-jangdan is twenty-four four times of

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quarter notes. These 24beats are divided into four parts to sextuple time (24/4, 18/4, ♩. = 30~45). It is beginning, process, result, and conclusion would mean that as setting up, the heat, solution and relaxation. Especially, Jinyang-jangdan, which is close to western minor code, expresses heartbreaking grief and great mourning feeling, so it makes one feel the catharsis through that rhythm.

Jajinmori-jangdan

Jajin is literally meaning frequently, or repeatedly, and mori meaning put on the speed. In other words, one time per second. Jajinmori-jangdan can express a piece of music in twelve-eight, or four-four time (♩. = 90~144, 12/8). Jajinmori rhythmic cycle is allegro in speed, but more faster than the Jinyang-jangdan. In Jajinmori-jangdan the accent is on the first time. Jajinmori-jangdan (rhythmic cycle) of twelve beats, 4+4+4+4 (12/8 metre, ♩. = 90~144), in allegro moderated tempo. It gives charm and gaiety to people and to everything. So, it is exciting that it's often performed in festival and parade.

RESULTS AND DISCUSSION

The rhythm in music can structure behavior by simultaneously influencing emotions directly and altering physiological functioning such as heart rate, muscle tone, blood pressure, and respiration (Sangeetha et al., 2000; Steckler, 1998). Tempo importantly acts the perception of music, especially its expressiveness (Shaffer and Todd, 1994; Takahide et al., 2018) and emotion (Gabrielsson and Lindström, 2010; Takahide et al., 2018). Tempo employed stimuli with different average tempi and sought that pieces with faster tempi induced higher ratings for groove (Janata et al; Takahide et al., 2018).

Jinyang-jangdan of daegeum music may be slow, but it can be sublimated into grim music for human. So, people overcome the sadness through grim music. On the other hand, jajinmori-jangdan provides great entertainment, joy, and groove to all listeners. Rhythmical music is a tool to improve the well-being of humanity and increase our life choices. Therefore, music therapy surely needs both influences of daegeum sanjo music regardless of the rhythm. Because, daegeum sanjo music is nature-friendly music of the rhythm.

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CONFLICT OF INTEREST

None.

REFERENCES

David WH. Oral Mnemonics in Korean Music: Data, Interpretation, and a Musicological Application, *Bulletin of the School of Oriental and African Studies, University of London.* 1991;54: 307-335.

Gabrielsson A., Lindström E. The role of structure in the musical expression of emotions. In: *Handbook of music and emotion: theory, research, applications.* Juslin PN, Sloboda JA ed. (England, Oxford: Oxford University Press), pp. 367-400,

2010.

Hwang BK. Aesthetic Characteristics of Korean Music in Theory and in Practice. *Asian Music.* 1978;9:29-40.

Inok PH. The Sanjo Tradition of Korean Komungo music by Song Bang-Song. *Yearbook Traditional Music.* 1989;21:139-141.

Janata P, Tomic ST, Haberman JM. Sensorimotor coupling in music and the psychology of the groove. *J Exp Psychol Gen.* 2012;141:54-75.

Keith H. Korean musical instruments a practical guide. (Korea, Seoul: Se Kwang Music Publishing Co.), pp. 11-288, 1988.

Kim HY, Kim NR, Ko KJ, Jeong HJ, Kim HM. Effect of Korean Music therapy on depression: Daegeum playing of Arirang. *Intern J Psychotherapy.* 2017;2:66-71

Morris DL. Music Therapy. In: *Dossey BM, Keegan L, Holistic Nursing: A Handbook for Practice.* (USA, MA: James and Bartlett), pp. 327-346, 2009.

Nayak S, Wheeler BL, Shiflett SC, Agostinelli S. Effects of music therapy on mood and social interaction among individuals with acute traumatic brain injury and stroke. *Rehabilitation Psych.* 2000;45:274-283.

Sand-Jecklin K, Emerson H. The impact of a live therapeutic Music intervention on patients experience of pain, anxiety, and muscle tension. *Holist Nurs Pract.* 2010;24:7-15.

Shaffer LH, Todd NP. The interpretive component in musical performance. In *Musical perceptions* Aiello R, Sloboda JA ed. (USA, New York: Oxford University Press), 258-270, 1994.

Song BS. Korean music historical and other aspects. (Korea, Seoul: Jimoondang Publishing Company), pp. 3-464, 2000.

Steckler MA. The effects of music on healing. *J Long-Term Home Health Care.* 1998;17:42-48.

Takahide E, Atsushi M, Satoshi K, Peter EK. Optimal tempo for groove: Its relation to directions of body movement and Japanese nori. *Front Psychol.* 2018;9:462.