EXPANDING HORIZONS OF ACADEMICALLY STRESSED ADOLESCENTS THROUGH MUSIC THERAPY BY ENHANCING PERCEIVED SOCIAL SUPPORT AND ACADEMIC RESILIENCE

Mamta Sharma

Ph.D, Assistant Professor, Dept. of Psychology, Punjabi University Patiala
Email: drmamta1997@gmail.com

ABSTRACT

The study aims to evaluate the efficacy of music therapy in enhancing the academic resilience and perceived social support among stressed adolescents. It was hypothesized that post intervention scores of perceived social support and academic resilience would be enhanced as compared to pre intervention scores. A pre and post-assessment design was adopted. Multidimensional Scale of Perceived Social Support (MSPSS- Zimet, Dahlem, Zimet, Farley, (1988) and Resilience Scale (G. Wagnild and H. Young, (1993) were used to identify 30 adolescents with low social support, low resiliency and high academic stress. Music therapy was given for a period of three weeks. After intervention, the same scales were re-administered to see the effects of music therapy. Results revealed that music therapy enhanced adolescent's social support and academic resilience as post-intervention scores of experimental group on social support and academic resilience were high as compared to control group (t = 11.65, p < .01) and (t = 25.63, p < .01) respectively. Significant difference (t = 17.21, p < .01) was also found between pre and post-intervention resilience scores of experimental group whereas control group didn't show any statistical difference between its pre and post-intervention scores (t = 2.86). Post-intervention perceived social support scores of experimental group were found to be significantly higher (t = 14.70, p < .01) than pre intervention perceived social support scores as compared to control group where post and pre scores did not reveal any significant difference (t = 3.49).

Keywords : Perceived Social Support, Academic Resilience, Academic Stress, Music Therapy

INTRODUCTION

An adolescent is a tender age in which they experience strong feelings of stress, confusion, self-doubt, pressure to succeed and financial uncertainty, besides other fears while growing up. The transition through these years can be rough and stressful at times as adolescents are most vulnerable to social and psychological pressures.

Adolescents are often ill equipped to cope with stress during these transitions from a child to pre-adolescence and from pre-adolescence to adolescence phases. As a considerable proportion of a teenager's life is spent at school in the pursuit of academic endeavors, it is reasonable to assume that a substantial proportion of stressors affecting adolescents may originate in the academic area (Jones, W. Hattie, A.,1991)**.** Academic stress is associated with a variety of negative health outcomes, including depression, anxiety, and physical illness. High school students cite day-to-day stresses of school (e.g., tests, grades, and homework, academic and achievement expectations) among their greatest stressors (Crystal et al., 1994; de Anda et al., 2000; Lohman & Jarvis, 2000). It occurs due to imbalance between the environmental demand & the response of the individual (Dhingra 2005).

Stress is produced when pressure exceeds one's perceived ability to cope. Moreover, stress will soften one's performance in every domain if they do not know that social support has a direct influence on personal emotion (Tao et al., 2000). The situation becomes more vulnerable when the students move away from their protected and secured home environment to independent and explorable college life. This transition from school to higher studies can become smoother if they have parental support. Holahan, Valentiner, and Moos (1995) supported this viewpoint that students with higher level of parental support will exhibit higher levels of happiness and lower level of depression.

During adolescence, the feeling of belonging is quite significant (Yesilyaprak, 2005) and a significantly increased amount of time is spent outside of the family with friends, which, in turn, is an important step for socialization. However, it does not mean that the adolescents want to stay away from their families or spend time alone. Those who trust their families and have strong relationships with them have been observed to maintain good relationships with their peers as well (Aydın, 2005). It is important to gather information on how an adolescent perceives the surrounding environment in order to assess the social support system. *Social support* can be described as *the social and psychological support provided by the environment*. Feeling socially supported appears to help students in at-risk situations develop academic resilience, achieve positive educational outcomes, and establish a buffer against stress (Clark, 1991). In today's youth, Academic stress can be seen, particularly a highly competitive atmosphere. Social support acts as a coping resource. It is important to gather information on how an adolescent perceives the surrounding environment in order to assess the social support system.

Adolescents experience emotional ups and downs during this period, in which there are dramatic changes, and as a result of such changes an individual's perception of the world is altered. Adolescence is an important period that must be understood by both the family and society (Arslan, 2008). For adolescents to solve problems concerning their peers and family, adapt to their environment, and keep themselves psychologically well, social support is important (Altunbas, 2002). Though parents provide support in the important decision making and makeup of personality traits of

adolescents (Wall, Covell, & Macintyre, 1999) and teachers support them in developing their academic attitude and academic success (Gurkan, 1993) but peers remain as the most sought after help and support.

Cobb's Buffer theory (1979) believes that social support provides a 'buffer' when people are in crisis, thus the absence of social support may remove this buffer leading to positive conditions. Support from friends and others make stressful situations more tolerable (Cohen & Hoberman, 1982; Antonovsky, 1974; 1979; Caplan, 1974; Cassel, 1976; Henderson et al., 1978b; Liem & Liem, 1978). The perceived significance of stressful events and their damaging effects can be buffered even by the perception of social support because it promotes mental health (Wethington & Kessler, 1986)

Without some level of resilience it is tough to fight the odds. Motivation plays a large part in students' interest in and enjoyment of school and study. It may be, however, that an energy and drive to learn, work effectively, and achieve to one's potential is not sufficient to deal with academic setbacks or excessive study pressure and stress. Without some level of resilience to these types of challenges, the motivated student's gains may well be lost. In the academic context, academic resilience is defined as students' ability to deal effectively with academic setbacks, stress, and study pressure. Research has shown that resilient young people have a number of protective factors in their lives. Protective factors (a) reduce the impact of negative events, (b) help individuals avoid or resist problematic pathways, and (c) promote positive and successful pathways. Booster thoughts are measured through self-belief, learning focus, and value of schooling; booster behavior are measured through persistence, planning and monitoring, and study management; guzzler thoughts/feelings are measured through anxiety and low control; and guzzler behaviors are measured through failure avoidance and self-sabotage (Martin,2003).

According to (Wagnild and Young, 1990; 1993) the five characteristics, which serve as the conceptual foundation for RS, are: self reliance, meaning, equanimity, perseverance and existential aloneness If academic resilience is pursued along the same lines as the larger body of research into general resilience, it can be proposed that enhancing academic resilience requires us to enhance the protective factors in students' lives and reduce the risk factors. Thus there are booster thoughts and booster behaviours. There are also guzzler thoughts and guzzler behaviours. Booster thoughts are measured through self-belief, learning focus, and value of schooling; booster behaviours are measured through persistence, planning and monitoring, and study management; guzzler thoughts/feelings are measured through anxiety and low control; and guzzler behaviours are measured through failure avoidance and self-sabotage (Martin, 2003).

Adolescence is a Psycho-Social-Biological stage and the need to treat this stage has led to the introduction of Complementary Therapies which take care of the often unmet psychological and social needs of the patients. In a country like India, known for its rich cultural heritage and traditions, many traditional healing systems like Yoga and Ayurveda have been welcomed globally and have been given scientific endorsements

for their therapeutic values. One such approach called music therapy (Sumathy, Sundar 2005). Music therapy is a new form of approach to help children and adults, who have problematic behaviors; to make effective adjustments toward social, emotional, mental and educational aspects, where brain plays a dominant role. Many of the imbalances may also be made rightly set by regular exposure to certain ragas with special emphasis' on certain notes of music (Mythily, T, 2012).

Social support is found to be improved with the application of music as a therapeutic tool (Henderson, 1987). Music therapy assists parents to extend their repertoire of successful and nurturing parental behaviors (Abad & Edwards, 2004). Music is utilized in the interventions to facilitate and support attachment behaviors between parents and children, to foster development, and reduce the potential impact of social disadvantage. The successful use of Music Together activities at home may have reinforced the incorporation of music into everyday life and, in turn, fostered positive parent-child interactions. Strong and healthy attachments can be enhanced by offering positive parent-child interactions within and outside of the sessions, which consequently become the source of reducing the potential negative impact of stressful life events and the development of mental health problems in the child (Bargiel, 2004).

Music can also enhance adolescent's resilience. Resilience involves a combination of mood and behavioral self management in response to adversity, as well as an active striving to find positive meaning in difficult circumstances. Music functions as a window through to the internal state of the teenager that can be used to increase personal understanding. Suvi Laiho (2004) highlighted a range of emotional use of music, from pumping up to managing fluctuations of mood and also boosting resilience to deal with stress.

Music therapy is an efficacious and valid treatment for persons who have psychological affective, cognitive and communicative needs. Emotional well being, physical health, social functioning, communication abilities and cognitive skill can be assessed through musical responses. Music Therapy is the use of music, as a therapeutic tool for the restoration, maintenance and improvement of psychological, mental and physiological health. The American Association of Music Therapy defines music therapy as "the prescribed use of music by a qualified person to effect positive changes in the psychological, physical, cognitive, or social functioning of individuals with health or educational problems" (AMTA, 1998). Music therapy is based on the associative and cognitive powers of the mind. It is one of the expressive therapies which are of late interpreted as a complementary or integrative medicine. There are areas where people are not able to express themselves to others. Tyranny, social and economic status or hierarchy, fear of the powerful, feelings of shame are some of the few social reasons as to why the expression is gagged in the social milieu and which snowballs – over the years to affect the mental as well as physical well-being of an individual (Sairam, T.V. 2006).

Indian theory of music postulates that Ekagram (concentration) is necessary for a sustained therapeutic relaxation effect (Sharma, M. 2002). The psychoanalytic theory

believes that music has access to the Id, Ego and Super Ego even if the elements are not working in accord as in the cases of psychosis. This theory relates the early childhood to the auditory thinking that is the characteristic of the period. In other words, music with its roots in rhythm is related to the Id and the unconscious as well as to the emotional elements and sensual experiences within the ego (Sharma, M. 2002). Thalamic Response Theory of Musical Influence says that the spoken word is perceived in the cortex, but music may be perceived on the sub cortical level, that is, in the thalamus which is the seat of emotions, feelings and sensation (Sharma, M. 2002). The biological explanation regarding the efficacy of music proposes that the sound waves touch certain sets of neurons in the brain that get activated and increase the amount of ethnol in the body. The level of the ethnol in the body is related to the emotional health of the individual. A music raise the level of ethnol as it is raised by the sedative pills (Asha 1991).

Music therapy is an effective modality for responding to crisis situations as well as the aftermath of a crisis. Music therapy has been used for survivors and witnesses of traumas such as the Hurricane Katrina, the Virginia Tech shooting, the September 11, 2001 attack, veterans and civilians injured and/or displaced from war zones, women and children who have been involved in human trafficking, survivors of sexual assaults, and survivors of domestic violence (Nicole Hahna). Music therapists work towards a number of non-musical goals including improving communication skills, decreasing inappropriate behavior, improving academic and motor skills, increasing attention span, strengthening social and leisure skills, pain management and stress reduction. Music therapy can also help individuals on their journey of self-growth and understanding *(AMTA, 1998)*

In modern times, academic stress is becoming a major source of threat to the physical and mental well being of adolescents but little effort has been done to overcome this threat. Adolescents lack self-reliance, confidence and ability to plan for themselves (Erickson, 1963). While research within this field may seem intensive, but a very few studies have focused on non western cultures. Moreover the past studies have not combined these two factors of social support and academic resilience while examining the effect of music therapy. The present study sought to examine the efficacy of Indian music on social support and academic resilience in a sample of Indian adolescents.

HYPOTHESES

H01: Post-intervention perceived social support scores of individuals in experimental group would be significantly higher as compared to post-intervention perceived social support scores individuals in control group.

H02: Post intervention perceived social support scores in experimental group would be better as compared to Pre intervention perceived social support scores.

H03: Post-intervention academic resilience scores of individuals in experimental group would be significantly higher as compared to post-intervention academic resilience scores individuals in control group.

H04: Post intervention academic resilience scores in experimental group would be better as compared to Pre intervention academic resilience scores.

SAMPLE

The sample comprised of 60 adolescents between the age group of 15 to 18 years of age. The mean age range was 16.85.

Instruments: The following tests were used to identify the desired sample:

1. Scale of Academic stress (SAS-3; - Dr. Abha Rani Bisht (1987) : It consisted of 80 items. It had four components-academic anxiety, academic frustration, academic pressure, and academic conflict .Academic anxiety 15 items, academic frustration has 26 items, academic pressure has 24 items, academic conflict has 15 items.

2. Multidimensional Scale of Perceived Social Support (MSPSS- Zimet,Dahlem, Zimet,

Farley, (1988): It consisted of 12 items with 7-type scales ranging from "very strongly disagree "to very strongly agree". MSPSS measures the adequacy of support from three sources; family, friends and significant others.

3. Resilience Scale (G. Wagnild and H. Young, (1993) : The 25-item **Resilience Scale (RS™)** measures the degree of individual resilience, which is considered a positive personality characteristic that enhances individual adaptation. All items are scored on a 7-point scale from 1 = disagree, to 7 = agree.

4. Music therapy - Soft instrumental music (flute) : Desi Todi raga (Flute) by Hariprasad Chaurasia was given to them for three weeks daily for ½ hr from 7am to 7.30 am.

Intervention Design

The music therapy was applied through a cassette with a 30-minute recording of Raga being played by a flute. A cassette player with headphones was utilized for this purpose. The use of raga, such as Mian ki Malhar, Desi Todi, and Darbari Kanada among the most famous, for emotionally moving or healing was first initialed by Tansen who could work miracles with his singing. Desi Todi raga (Flute) by Hariprasad Chaurasia was used as the intervening raga for the present study. The participants in the experimental group were subjected to the flute-version of the raga for half an hour daily for regular three weeks. To avoid unethical practice, the experimenter discussed academic related issues like study habits, time-management and career selection with the participants of the control group.

Procedure

Experimental and control groups were employed to examine the efficacy of music therapy on perceived social support and academic resilience. Scales of academic stress, perceived social support and academic resilience were administered on 100 students, out of which 60 subjects were found to have high academic stress with low perceived

social support and low academic resilience. Half of the screened subjects (n = 30) were selected for music therapy, whereas the remaining subjects were assigned to the control group. Consent of the respective authorities and subjects was taken in advance. All the participants were very comfortable with English language. The subjects were seated in such a way that they could not look at each other and were instructed to enjoy music through headphones till the music continued. After three weeks of intervention, perceived social support and academic resilience scales were re-administered to assess the efficacy of music therapy to both the groups.

Results: In the light of stated hypothesis, means, standard deviations, and t-test were computed.

Table 1: Means, Standard Deviation, t-test, for Post-intervention Scores of Experimental and Control Group on Perceived Social Support (N = 60)

Variables	Experimental Group		Control group		t-values
	Means	SDs	Means	SDs	
Perceived Social Support	61.00	11.97	29.17	8.97	11.65**

Table 1 depicts means and standard deviations of control and experimental group obtained on perceived social support scores. The difference between control group and experimental group on perceived social support is found to be statistically significant proving effectiveness of music therapy intervention in enhancing perceived social support (t = 11.65, p < .01). It is evident in this table that after getting music therapy intervention, individuals in experimental group scored high on perceived social support (M = 61.00, SD = 11.97) as compared to those who did not receive any such treatment i.e. control group (M = 29.17, SD = 8.97).

Table 2: Means, Standard Deviation, t-test, for Post-intervention Scores of Experimental and Control Group on Academic resilience (N = 60)

| Variables	Experimental Group		Control group		t-values
	Means	SDs	Means	SDs	
Academic Resilience	150.70	16.44	55.79	11.84	25.63**

As depicted in Table 2, participants in experimental group showed significantly better academic resilience as compared to those in control group after intervention (t = 25.63, p < .01). It is also shown in the table that individuals in experimental group scored high on academic resilience (M = 150.70, SD = 16.44) as compared to individuals of control group (M = 11.84, SD = 11.84).

Table 3 Means, SD and t-test for Perceived Social Support and Academic resilience in both pre and post intervention assessment session of experimental and control group

Groups	Variables	Means & SDs				
		Pre-Intervention		Post-Intervention		t-value
		Mean	SDs	Mean	SDs	
Experimental Group	Perceived Social Support	22.17	8.12	61.00	11.97	14.70**
	Academic Resilience	56.87	24.94	50.70	16.44	17.21**
Control Group	Perceived Social Support	24.09	9.12	29.17	8.97	3.49
	Academic Resilience	54.91	23.60	55.79	20.84	2.86

To provide more support in the efficacy of intervention, pre-intervention scores on Perceived Social Support and Academic Resilience were compared with post-intervention scores in both control and experimental group. Findings show that post-intervention mean Perceived Social Support and Academic Resilience scores are higher than pre intervention mean scores of experimental group. Pre-intervention and post-intervention perceived social support scores differ significantly ($t = 14.70$, $p < .01$), whereas no significant difference has been found between pre-intervention and post-intervention scores of control group ($t=3.49$). The similar significant trend can be seen in pre-intervention and post-intervention scores of academic resilience ($t=17.21$, $p<.01$), whereas control group did not show any significant difference between pre and post academic resilience scores ($t= 2.86$).

FIGURE 1 : Graphical Representation of Perceived Social Support Scores in both pre-intervention and post-intervention assessment session.
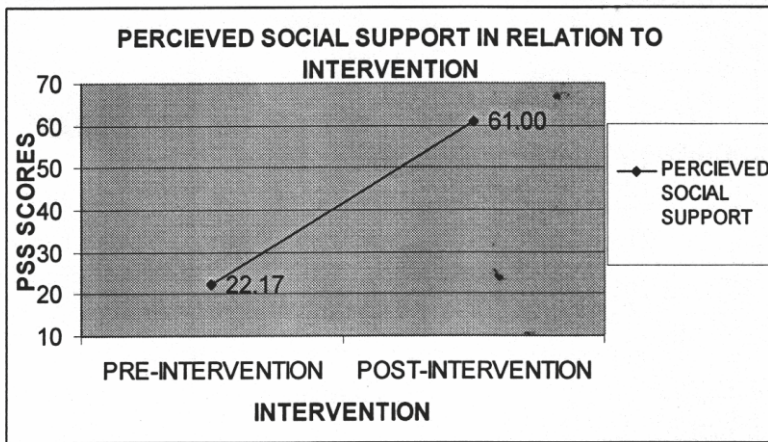
Results in the Table 3 and figure 1 depicts that significant difference between pre and post intervention of perceived social support ($f=14.70$, $p<. 01$). As shown pre intervention scores of perceived social support are lower ($M=22.17$) as compared to post intervention are high ($M=61.00$). Hence it proves that Music therapy enhances perceived social support.

FIGURE 2: Graphical Representation of Academic Resilience Scores in both pre-intervention and post-intervention assessment session
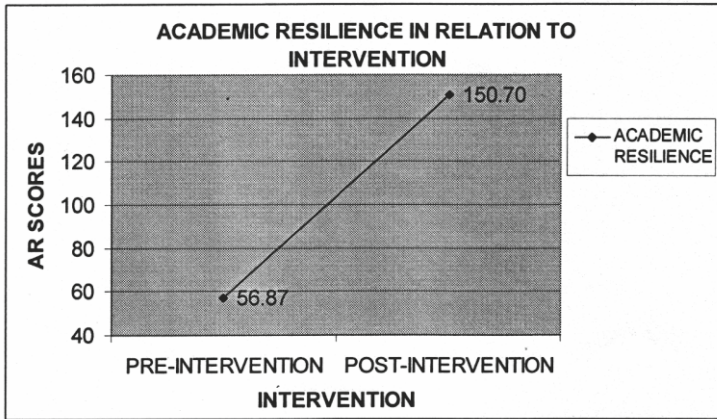

Table 3 and figure 3 clearly depict that the difference between pre and post academic resilience reached highly significant level (t=17.21**). Mean values clearly indicate that pre intervention and post intervention are lower (M=56.87) and post intervention are higher (M=150.70). Thus it proves that academic resilience can be enhanced by music therapy.

DISCUSSION

Results show that all the hypotheses of the study are proved. The findings are in consonance with the theoretical argument of the present investigation as well as empirical findings of various researches in the related context. Significant difference between pre and post intervention of perceived social support proves that Music therapy enhances perceived social support. Perceived support is a *"sense of acceptance"* with interwoven with positive emotions such as contentment and warmth, happiness and joy, as opposed to negative emotions such as anxiety, depression, and anger. Along with support, motivation is also required as motivation plays a large part in students' interest in and enjoyment of school

This may be because new application of music therapy assists parents to extend their repertoire of successful and nurturing parental behaviors (Abad & Edwards, 2004). Music is utilized to facilitate and support attachment behaviors between parents & children, to foster development, and reduce the potential impact of social disadvantage. The successful use of Music Together activities at home may have reinforced the incorporation of music into everyday life and, in turn, fostered positive parent-child interactions. These positive parent-child interactions within and outside of the sessions offer experiences of positive sharing that may lead to enhanced early attachment. Strong early attachments can reduce the potential negative impact of stressful life events and the development of mental health problems in the child (Bargiel, 2004).

Music therapy is concerned with the use of specific kinds of music and its ability to produce changes in behavior, emotions, and physiology" (Johnston, K & Rohaly-Davis, J. 1996). When music is played, all regions that are networked by the limbic system are stimulated, resulting in feeling and expression Music has also been shown and to induce phenylethylamine secretion from the limbic system, a neuroamine that is responsible for the feeling of 'love', Having a support system in place will give you a greater sense of confidence in your abilities and will allow you to approach life more optimistically. Because relationships are the source of quality social support, learning to care for and properly manage your relationships is an essential skill for quickly bouncing back from adversity.

Music therapy offers potential to meet psychological, social, and emotional needs. The involvement of the prefrontal cortex in emotional responding is one of the things that separate humans from animals. Animals have little control over their expression of emotions. People's ability to change the way they experience emotion is important for two reasons: first because it means that people have a real, if limited, capacity to snap out of negative emotions that don't serve them, and second because choosing to snap out of negative emotions is usually a good decision that can have a positive influence on one's overall health. The limbic system is responsible for controlling emotions as located at the border between the cerebral cortex and the brainstem, the limbic system is composed of a ring of connected structures, including the cingulate gyrus, hippocampus, fornix, mammillary bodies, hypothalamus, mammillothalamic tract, anterior thalamus, and the olfactory bulbs. When music is played, all regions that are networked by the limbic system are stimulated, resulting in feeling and expression thus music creates effective modality for responding to crisis situations as well as the aftermath of a crisis. Music therapy helps the individuals on their journey of self-growth and understanding (AMTA, 1998). Thus it proves our hypothesis that academic resilience can be enhanced by music therapy. The work of AMTA has demonstrated music therapy as an effective modality in helping to cope with events surrounding a crisis like Hurricane Katrina, the Virginia Tech shooting and the September 11, 2001 attack and its aftermath by developing coping strategies, supporting feelings of self-confidence and security, and providing a safe or neutral environment for relaxation *(AMTA, 2002).*

Thus, Music therapy has an ultimate and magical effect on the adolescents suffering from low perceived social support and academic resilience. Thus it can be said music is the outburst of the soul and boon to the modern world. In our fast-paced world, sometimes adolescents can benefit from simple alternative techniques to cope with day to day stress. These findings can be used to encourage the use of music as a therapeutic intervention with similar cultural populations in India and elsewhere.

REFERENCES

- Altunbas, G. (2002). The relationship between the social support levels of university students and some personal characteristics and social skill levels. *Unpublished master's thesis, Anadolu University, Eskisehir, Turkey.*

- American Music Therapy Association. (2002). *Music therapy and individuals with diagnoses on the autism spectrum,* 1-6. Retrieved September 1, 2006, from www.musictherapy.org/factsheets/autsm.html

- Antonovsky, A. (1974). Conceptual and methodological problems in the study of resistance resources and the stressful life events. *Psychology and Aging, 12(4), 574-589.*

- Arslan, E. (2008). An investigation of Erikson's psychosocial development stages and ego identity processes of adolescents with respect to their attachment styles. *Unpublished doctoral dissertation, Selcuk University, Konya, Turkey*

- Asha (1991). *Sangeet Dhara Vaidya Shastrm.* 20.

- Aydın, B. (2005). *Çocuk ve ergen psikolojisi* [Child and adolescent psychology]. İstanbul: Atlas Publishing.

- Bargiel, M. (2004). Lullabies and play songs: Theoretical considerations for an early attachment music therapy intervention through parental singing for developmentally at-risk infants. *Voices: A World Forum for Music Therapy.* Retrieved 3 April, 2004 from www.voices.no/mainissue/mi40004000143. html

-
- Caplan, G. (1974). Support Systems and the Community Mental Health. *New York: Behavioral Publications.*

- Clark, M. L. (1991). Social identity, peer relations, and academic competence of African-American adolescents. *Education and Urban Society,* 24, 41-52.

- Cohen, S., & Wills, T. A. (1985). Stress, social support and the buffering hypothesis. *Psychological Bulletin,* 98(2), 310-357.

- Crystal, D. S., Chen, C., Fuligni, A. J., Stevenson, H. W., Hsu, C., & Ko, H. et al. (1994). Psychological maladjustment and academic achievement: A cross-cultural study of Japanese, Chinese, and American high school students. *Child Development,* 65, 738-753.

- De Anda, D., Baroni, S., Boskin, L., Buchwald, L., Morgan, J., & Ow, J., et al. (2000). Stress, stressors and coping among high school students. *Children and Youth Services Review,* 22, 441-463.

- Dhingra, M. (2005). Impact of learning approach and Academic stress on the Academic Achievement of IX Graders". *Diviner,* 4 Dec.

- Erickson, E, (1963) .*Childhood and society,* New York: W: W Norton.

- Henderson, S. M. (1983). Effects of a music therapy program upon awareness of mood in music, group cohesion, and self-esteem among hospitalized adolescent patients. *Journal of Music Therapy,* 20, 14-20.

- Henderson, S., D.G. Byrne, P.Duncan - Jones, S. Adcock, R. Scott, and P.Steel, (1978). Social bonds in the epidemiology of neurosis: A preliminary communication. *British Journal of Psychiatry,* 132, 463-66.

•   Holahan, C.J., Valentiner, D.P., & Moos, R.H. (1995). Parental support, coping strategies, and psychological adjustment: An integrative model with late adolescents. *Journal of Youth and Adolescence*, *24*(6), 633-648.

•   *La*iho, S. (2004). The Psychological Goals for Engaging in Music in Adolescence. Proceedings of the 6th European Music Therapy Congress, 16.-20.

•   Liem, R. & Liem (1978). Social class and mental illness reconsidered: The role of economic stress and social support. Journal of Health and Social behavior, 19, 139-56.

•   Lohman, J. B., & Jarvis, P. A. (2000). Adolescent stressors, coping strategies, and psychological health studied in the family context. Journal of Youth and Adolescence, 29, 15-43.

•   Martin Andrew, (2002). Adapted from Motivation and Academic resilience: developing a model for a student enhancement. The red Socks - the official publication of the department of student development.

•   Mythily, T. (2012). Effects of Music In Autistic Children and their Behavior. www.emusictherapy.com/rautisticchildren.html

•   Sairam, T. V. (2006) .Music Therapy for Alzheimer's Patients. Ayurveda and All. November Issue. 35-37.

•   Sharma, P, (2006). Worried over children's stress? Try music therapy, Tribune, August, 22.
•   Sumathy, Sundar (2005). Can Traditional Healing Systems Integrate With Music Therapy? Sumathy Sundar interviews T. V. Sairam. Voices: A World Forum for Music Therapy. Retrieved October 31, 2010, from http://www.voices.no/mainissues/mi40005000186.html

•   Tao, S., Dong, Q., Pratt, M.W., Hunsberger, B., & Pancer, S.M. (2000). Social support: Relations to coping and adjustment during the transition to university in the Peoples Republic of China. *Journal of Adolescent Research, 15*(1), 123-144

•   Wagnild, G. (2009).The Resilience Scale User's Guide for the US English version of the Resilience Scale and 14-item Resilience Scale (Rs-14).*Worden, MT: The Resilience Centre.*

•   Wall, J., Covell, K., & Macintyre, P. D. (1999). Implications of social support for adolescents' education and career aspirations. *Canadian Journal of Behavioral Science*, 31, 63-71.

•   Wethington, Elaine and Ronald C. Kessler. (1986). Perceived Support, Received Support, and Adjustment to Stressful Life Events. *Journal of Health and Social Behavior, 27.*

•   Yesilyaprak, B. (2005). *Eğitimde rehberlik hizmetleri, gelişimsel yaklaşım* [Guidance in Education, Developmental Approach]. *Ankara: Nobel Yayın Dagıtım.*