

Study of Stress and Interpersonal Relationship with Indian Music Therapy acting as a Mediator – A Case Study of Kolkata, India

Rupa Paul ^{1*} Dr Abhijit Pandit ²

¹ Research Scholar, Amity Business School Kolkata, Amity University, Kolkata

² Assistant Professor(Grade II), Amity University, Kolkata

Abstract

This study aims to find out the effects of Coping with Indian Music Therapy interventions as a mediator on Perceived Stress and Interpersonal Relationship. Primary data was obtained from 204 respondents of Kolkata, India selected by random sampling method. Hypotheses that were tested are: (1) Stress has significant effect on Interpersonal Relationships; (2) Stress is significantly related to Coping; and (3) Stress will have a significant effect on Interpersonal Relationships, mediated by Coping. The instruments used in this study were Coping with Indian Music Scale, Perceived Stress Scale and Interpersonal Relationship Scale. Fitness of the proposed model was examined through Structural Equation Modelling (SEM), using SPSS-22 and AMOS-22 software packages. Findings indicated that the proposed model fit the data properly and the results confirmed all research hypotheses. Thus it can be concluded that Coping Strategies with Indian Music Therapy can lead to improve the quality of Interpersonal Relationship by minimizing level of Perceived Stress.

Keywords - Coping, Perceived Stress, Interpersonal Relationship, Indian Music Therapy.

Introduction

Seyle (1993) views stress as the nonspecific physical or psychological impact of demand (stressors) to which the body responds. According to Seyle's theory, stress is unavoidable, and the individual eventually experiences physical or psychological burnout when the resources are depleted (Seyle, 1976). Stress is responsible for up to 80% of job injuries and 40% of turnover rates (The American Institute of Stress, 2009). Some researchers have found stressors similar to that of other direct-care helping professionals while also citing low income, lack of opportunities for job advancement, constant changes and adaptations, and lack of respect and support from administration (Bitcon, 1981; McKinney, 1992; Oppenheim, 1987; Vega, 2007). Stress may also arise from individual's cognitive appraisal

of stress and personality traits, such as hardiness, locus of control, personality type, attitude, and coping style (Lazarus & Folkman, 1984; Maslach, Schaufeli, & Leiter, 2001).

On the individual level, physical effects of occupational stress may include chronic fatigue, back pain, heart diseases, hypertension, diabetes, autoimmune disorders, sleep disturbances (Cahill, Landsbergis, & Schnall, 1995; Van Der Klink, Blonk, Schene, & Van Dijk, 2001). Psychological effects include depressive disorders, sleep disorders, anger, anxiety disorders, depression, alcoholism, interpersonal conflict, and withdrawal (De Vente, Kamphuis, Emmelkamp, and Blonk, 2008; Van Der Klink, et al., 2001).

In addition to the immediate changes to the managerial tasks, absenteeism and employee turnover create a vicious cycle of adding more stress to other employees by increasing job demands, affecting the overall staff morale and job satisfaction (D'Souza, Strazdins, Broom, Rogers, & Berry, 2006; Johnson, Croghan, & Crawford, 2003; Libet, Frueh, Pellegrin, Gold, Santos, & Arana, 2001; Matrunola, 1996; O'Rourke, Allgood, Vanderslice & Hardy, 2000). Occupational stress can negatively impact the institute's overall effectiveness and quality of work (O'Rourke, et al., 2000). In order to reduce the negative impact of occupational stress, it is important to understand the concept of stress and wellness.

Lazarus and Folkman (1984) defined coping as "constantly changing the cognitive and behavioral efforts to manage certain external and / or internal demands that are assessed as over-charged or excessive of one's resources" (p.141). Two types of coping can be identified: (1) coping strategies, given such as adaptation, trying to control, resisting, ignoring, and attacking; and (2) meaningless coping, manifested as quiet, unfriendly appearance, suspension, cooperation, and apathy (Broome, Bates, Lillis, & McGahee, 1990).

Music therapy has been widely recognized in recent years as (Watanabe, 2001). Two interventions used in music therapy that include incorporating listening to music and musical performance are group music and imagery (Summer, 2002) and group burning (Bittman, et al., 2003; Bittman, et al., 2004). has been reported to be effective in technology that plays the role of music as an active, motivational, self-supportive.

Furthermore, group music therapy may enhance the sense of group cohesiveness, camaraderie, and the sense of community among direct-care workers that are often lacking in the workplace (Hilliard, 2006).

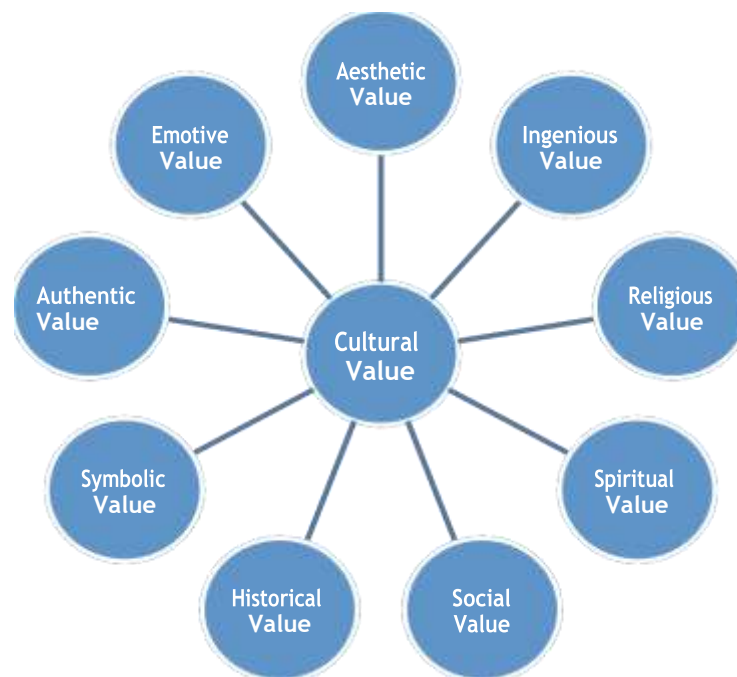
Review of Literature

Overview of Indian Music and its significance as Coping Strategy

The collective name 'Sangita' (Gitam, Vadyam Tatha Nrityam, Trayam Sangita Muchyate)"(Shringi, et al., 1978: 10)The different music and dance genres, styles and forms, which originated in India, and are presently flourishing on its soil and elsewhere; namely, Indonesia, Trinidad, South Africa, UK, USA and Germany, among others, are considered as the main Indian intangible expressions and heritage.

When a work of art, whether tangible or intangible, is created by people belonging to and espousing a particular culture, it becomes an important expression embodying the essence of that specific culture. The shared beliefs, attitudes, traditions, and, above all, values, by and through which the culture is formed, nourished, sustained, and perpetuated, and from which the people and community acquire their identity and uniqueness, become the constituent elements and essential attributes/characteristics of this art form. Throsby (2001:27) rightly considers "the true value of a work of art as lying in intrinsic qualities of aesthetic, artistic or broader cultural worth it possesses". He also argues that "... the expression of unique value in cultural objects can be seen as consistent with internal, natural or total values" of goods or ordinary goods. When I talk about these "cultural things" he was born with characteristics", Throsby (2001:28-29) mentioned six such constituent elements in art forms or cultural objects as follows: Aesthetic Value, Spiritual Value, Social Value, Historical Value, Symbolic Value and Authenticity Value. Likewise, Indian Music and Dance, as art-forms, have been shaped by and, thus, embody these perennial, time-tested, and universally-appealed values and thoughts. The author maintains that these have nurtured, enriched, and sustained Indian culture as well as the individuals and communities espousing it and flourishing under its protection over millennia.

Figure 1: Typology of the Cultural Values Inherent in Indian Music and Dance



The author has evolved 31 constituent values from these nine main values. It is worth noting in passing that the number of constituent values is not exhaustive and definitive. What is important is how they are imparted so that this knowledge can help trigger and optimize latent potentials as productive human beings and, at the same time, reinforce and deepen knowledge and skills of the art-form understudy.

The 31 constituent values, as categorized under the nine main values, are as follows:

Aesthetic Value	Harmony, Design, Symmetry, Restraint, Precision, Order and Newness
Ingenious Value	Wisdom, Clarity, Self-expression, Self-confidence and Self-governance

Religious Value	Religiosity and Morality
Spiritual Value	Truth, Universalism and Serenity
Social Value	Social Awareness, Co-operation, Tolerance and Respect
Historical Value	Continuity, Permanency and Authority
Symbolic Value	Communication and Significance
Authentic Value	Originality and Credibility
Emotive Value	Detachment, Sublimation, and Universalization

Music as a coping strategy involves the use of music (by listening / playing music / watching dance performance) to reduce stress, and the many mental and physical performances that come with it. The use of Indian music to cope with stress is an example of an adaptive anti-focus strategy. Instead of focusing on the stressor itself, music therapy is intended to reduce or eliminate the feelings that arise when responding to stress. In short, advocates of the treatment program say that the use of music helps reduce stress levels in patients, as well as low levels of natural balance such as epinephrine and cortisol levels. In addition, music therapy programs have been shown repeatedly to reduce depression and anxiety symptoms in the long term. There are a few special techniques that include the use of Indian music that are suggested to help reduce stress and stress related effects.

- Listening to soft music genres such as classical music.
- Listening to the music of your choice and introducing some control to one's life.
- Listening to music that brings back fond memories.
- Avoid music that reminds someone of sad or depressing memories.
- Listening to music as a way to interact with a community group.

Interpersonal Relationship and Coping

A large body of research on interpersonal relationships and coping (e.g., social competence) suggest that interpersonal relationship patterns are associated with social, emotional adjustment and functioning. Furthermore, persons with emotional and behavioural problems have a likelihood of experiencing poor relationships. On the other hand, conflicts in early relationships are strongly associated with the long-term outcomes of persons who are experiencing behavioural problems than persons who are not at risk.

When a number of studies provide empirical support for the effects relationships have on coping (e.g., social competence), questions can be raised as to what factors influence the relationship. The purpose of this study is to examine the role of coping in mediating the relationship between perceived stress and interpersonal relationships (Figure 2). The following hypotheses are proposed to test the role of coping as a mediator in a model of perceived stress and inter-personal relationship.

Hypotheses

- Perceived stress will have a significant effect on Interpersonal Relationship.
- Perceived stress will have a significant effect on Coping.
- Perceived stress will have a significant effect on Interpersonal Relationship, mediated by Coping.

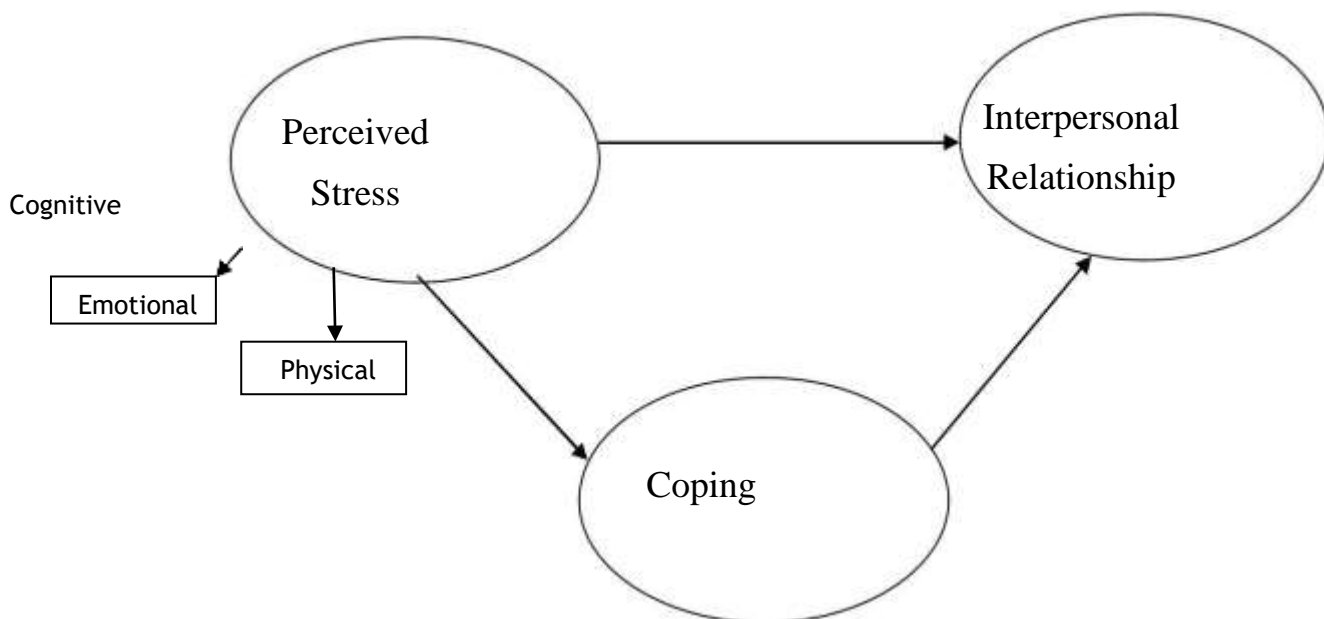


Figure 2: Expected mediating effect of coping

Research Methodology

In this correlation study, data collection method was cross-sectional. The study is one-group, one-stage and multi-variables. 204 respondents from Kolkata, India were selected through random sampling method. Fitness of the proposed model was examined through structural equation modeling (SEM), using SPSS-22 and AMOS-22 software packages.

In this study perceived stress was assessed with questionnaire for identification of stress level that specify dimension of reaction on stress including cognitive dimension, emotional dimension and physical dimension. Every dimension is measured with the help of a 1-5 response scale (5=always, 4=often, 3=some times, 2=rarely, 1=never). The Ways of Coping by Music Questionnaire measures the style of coping strategies in eight dimensions across a total of 66 items. The instruction given at the beginning of the questionnaire asked the respondents to think about the most 24 stressful events experienced in the past week and find how Indian Music assisted them in coping with those stressful events followed by responding on a 5-point Likert-type (5=always, 4=often, 3=some times, 2=rarely, 1=never). Similarly Interpersonal Relationship was captured by using a 5-point Likert-type (1 = “definitely does not apply” to 5 = “definitely applies”).

Analysis of Data

Model contains the following variables:

Observed, endogenous variables are:

Stress1, Stress2, Stress3, Coping1, Coping2, Relationship1, Relationship2

Observed, exogenous variables are:

Age, Gender, Location, Income, Qualification, Profession

Unobserved, endogenous variables are:

Stress_Level, Coping_Level, Relationship_Level

Unobserved, exogenous variables are:

e1, e2, e3, e4, e5, e6, e7, e8, e9, e10

Number of variables in model: 26
 Number of observed variables: 13
 Number of unobserved variables: 13
 Number of exogenous variables: 16
 Number of endogenous variables: 10

The following table shows various codes used for analysis:

<i>Age :</i> <18y:1, 18-25y:2, >25y:3	<i>Gender :</i> M: 1 F:2	<i>Location:</i> Urban:1 Rural:2	<i>Income:</i> <15K: 1 15K to 30K:2 >30K :3	<i>Qualification:</i> Secondary: 1 HS: 2 Graduation:3 PG: 4 Doctorate:5	<i>Profession:</i> Private: 1 Govt: 2 Business: 3 Self_Emp: 4 Prof_Serv:5
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Association	Estimate (Unstandardized Regression Weight)	S.E.	C.R.	P	Estimate (Standardized Regression Weight)	Significant /Not Significant at 5% level
Stress_Level <--- Age	0.196	0.18	1.084	0.278	0.099	Not significant
Stress_Level <--- Gender	0.394	0.14	2.814	0.005	0.211	Significant
Stress_Level <--- Location	-0.072	0.274	-0.263	0.793	-0.02	Not significant
Stress_Level <--- Income	0.036	0.102	0.352	0.725	0.031	Not significant
Stress_Level <--- Qualification	0.02	0.1	0.198	0.843	0.017	Not significant
Stress_Level <--- Profession	0.075	0.053	1.403	0.161	0.11	Not significant
Coping_Level <--- Stress_Level	0.045	0.042	1.048	0.295	0.097	Not significant
Relationship_Level <--- Coping_Level	0.245	0.151	1.621	0.105	0.229	Not significant
Relationship_Level <--- Stress_Level	0.085	0.059	1.444	0.149	0.174	Not significant
Stress1 <--- Stress_Level	1				0.872	
Stress2 <--- Stress_Level	0.898	0.109	8.224	0	0.788	Significant
Stress3 <--- Stress_Level	0.644	0.102	6.311	0	0.494	Significant
Coping1 <--- Coping_Level	1				0.423	
Coping2 <--- Coping_Level	2.276	1.355	1.679	0.093	1.086	Not significant
Relationship1 <--- Relationship_Level	1				0.39	
Relationship2 <--- Relationship_Level	2.107	1.132	1.862	0.063	0.991	Not significant

Mean, Standard Deviation and Correlation between research variables are summarized in the following table:

Variables	Mean	S.D.	Stress	Coping	Relationship
Stress	3.6846	0.90544	-----	0.083	0.048
Coping	3.9706	0.81948	0.083	-----	0.224*
Relationship	3.6569	0.8974	0.048	0.224*	-----
*p<0.01					

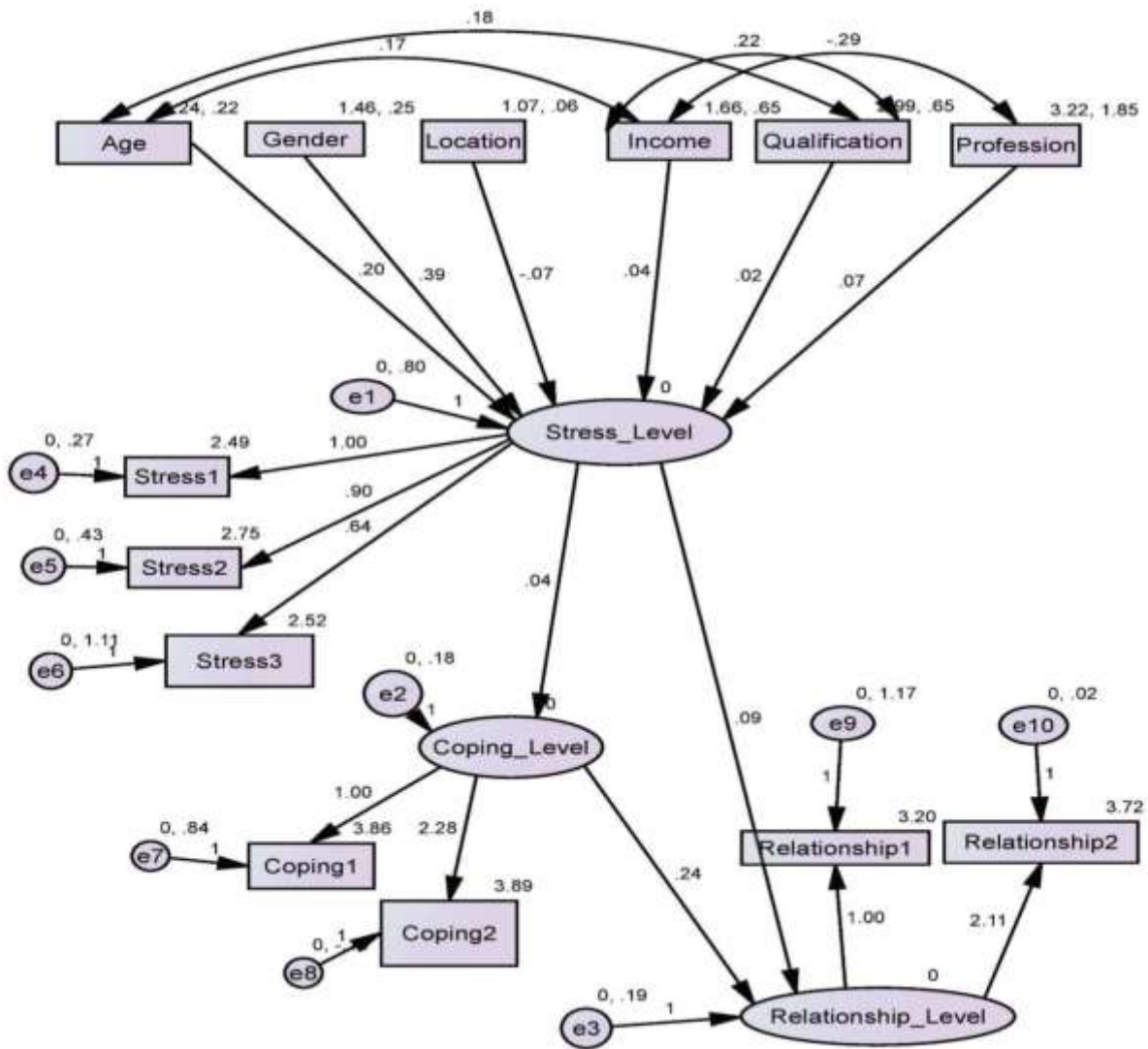


Figure 3: Structural Equation Modelling

Conclusion

Structural modeling results suggested that the hypothesized model fit the observed data adequately, $\chi^2=112.154$; $df=58$; $p<0.05$; $\chi^2/df=1.934$, GFI=.99; CFI=1; TLI=0.841; NFI=1; RMSEA=.068.

This study found a great statistically significant correlations between stress, coping and interpersonal relationship. These relationships, which had received support from previous studies, were examined with data from Kolkata, India. In fact, this study sought to investigate the process by which the factor of perceived stress is linked with interpersonal relationship, by including coping mechanism using Indian Music as a potential mediator.

There is need to study interpersonal relationships from how they influence the professional and individual lives of individuals and groups. It is important that people become more aware of the adverse physical and psychological responses to stress in order to prevent or limit their occurrence, since they can interfere with behaviour, weaken the social structure, and are deleterious to individuals. Nervous and depressed persons are less likely to be effective in the than those who cope more successfully with stress. This ineffectiveness in coping can further increase stress and illness. Successful coping, on the other hand, can lead to a decrease in the physiological activation associated with stressors and lessen the chance of becoming ill. It was found that perceived stress affects the quality of the interpersonal relationship negatively. Also results indicated that coping is a significant mediator in this relationship.

No one coping strategy probably is sufficient; rather, a multi-pronged approach seems to be called for. In this regard importance of Indian Music is felt as an effective and alternative coping strategy. The key is for individuals to be able to handle the inevitable job-related stress in a positive, active manner. Without gaining a sense of control over their jobs, employees seem doomed to a devastating plethora of physical, psychological, and social problems, which will only worsen their efficiency and effectiveness (creating a “vicious circle”).

References

- Abouserie, R. (1994). Sources and levels of stress in relation to locus of control and self-esteem in university students. *Educational Psychology, 14*, 323-330.
- Adams, R. E., Figley, C R., & Boscarino, J. A. (2008). The compassion fatigue scale: Its use with social workers following urban disaster. *Research in Social Work Practice, 18* (3), 238-250.
- Albarracin, D., Johson, B. T., & Zanna, M. P. (2005). *The handbook of attitude*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Alford, W. K., Malouff, J. M., & Osland, K. S. (2005). Written emotional expression as a coping method in child protective services officers. *International Journal of Stress Management, 12*, 177-187.
- Alvares, T. B. (2002). *The experience of being a mother of children up to two-and-a-half years old and the Bonny Method of Guided Imagery and Music*. Unpublished Doctoral Dissertation. The University of Miami. Coral Gables, Florida.
- The American Institute of Stress. (2009). Job Stress. Retrieved 4-2-09, from <http://www.stress.org/job.htm>
- Anderson, V. L., Levinson, E. M., Barker, W., & Kiewra, K. R. (1999). The effects of meditation on teacher perceived occupational stress, state and trait anxiety, and burnout. *School Psychology Quarterly, 14*, 3-25.
- Ashida, S. (2000). The effect of reminiscence music therapy sessions on changes in depressive symptoms in elderly persons with dementia. *Journal of Music Therapy, 37*, 170-182.
- Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice, 10*, 125-143.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management, 43*, 83-104.
- Bamber, M., & McMahon, R. (2008). Danger-early maladaptive schemas at work: The role of early maladaptive schemas in career choice and development of occupational stress in health workers. *Clinical Psychology and Psychotherapy, 15*, 96-112.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman. Barger, D. A. (1979). The effects of music and verbal suggestion on heart rate and self reports. *Journal of Music Therapy, 16*, 158-171.
- Bellarosa, C., & Chen, P. Y. (1997). The effectiveness and practicality of occupational stress management interventions: A survey of subject matter expert opinion. *Journal of Occupational Health Psychology, 2*(3), 247-262. Bitcon, C. (1981). Guest editorial. *Journal of Music Therapy, 18*, 2-6.

- Bittman, B. B., Berk, L. S., Felton, D. L., Westengard, J., Simonton, O. C., Pappas, J., & Ninehauser, M. (2001). Composite effects of group drumming music therapy on modulation of neuroendocrine-immune parameters in normal subjects. *Alternative Therapies*, 7, 38-47.
- Blake, R. L., & Bishop, S. R. (1994). The Bonny method of guided imagery and music in the treatment of post-traumatic stress disorder (PTSD) with adults in the psychiatric setting. *Music Therapy Perspectives*, 12 (2), 125-129.
- Blonk, R. W. B., Brenninkerijer, V., Lagerveld, S. E., & Houtman, I. L. D. (2006). Return to work: A comparison of two cognitive behavioural interventions in cases of work-related psychological complaints among the self-employed. *Work & Stress*, 20, 129-144.
- Bolwerk, C. L. (1990). Effects of relaxing music on state anxiety in myocardial infarction patients. *Critical Care Nursing*, 13(2), 63-72.
- Bond, F. W., & Bunce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology*, 5, 156-163.
- Bonny, H. L. (2002). *Music consciousness: the evolution of guided imagery and music*.
- Cahill, J., Landsbergis, P. A., & Schnall, P. L. (1995). Reducing occupational stress: An introductory guide for managers, supervisors, and union members. Paper presented at the Work Stress and Health Conference. Washington, D.C.
- Carosi, A. (2007). Predictors of workplace absenteeism and duration of employment in cancer care workers. Unpublished Master's Thesis. Lakehead University, Thunder Bay, Ontario.
- Cevasco, A. M., & Grant, R. E. (2003). Comparison of different methods for eliciting exercise-to-music for clients with alzheimer's disease. *Journal of Music Therapy*, 40, 41-56.
- Cheek, J. R., Bradley, L. J., Parr, G., & Lan, W. (2003). Using music therapy to treat teacher burnout. *Journal of Mental Health Counseling*, 25(3), 204-217.
- Chen, S. (2006). Impact of enhanced resources on anticipatory stress and adjustment to new information technology: A field-experimental test of conservation of resources theory. In K. M. Richardson & H. R. Rothstein (2008). Effects of occupational stress management intervention programs: A meta-analysis. *Journal of Occupational Health Psychology*, 13, 69-93.
- De Vente, W., Kamphuis, J. H., Emmelkamp, P.M., & Blonk, R. W. (2008). Individual and group cognitive-behavioral treatment for work-related stress complaints and sickness absence: A randomized controlled trial. *Journal of Occupational Health Psychology*, 13(3), 214-231.

- Dixon, S., & Korpius, S. E. R. (2008). Depression and college stress among university undergraduates: Do mattering and self-esteem make a difference? *Journal of College Student Development*, 412-424.
- Douglas, S. C., Kiewitz, C., Martinko, M. J., Harvey, P., Kim, Y., and Chun, J. U. (2008). Cognitions, emotions, and evaluations: An elaboration likelihood model for workplace aggression. *Academy of Management Review*, 33(2), 425-451.
- Durlak, J. A. (2000). Health promotion as a strategy in primary prevention. In D. Cicchetti, J. Rappaport, I. Sandler, & R. P. Weissberg (Eds.). *The promotion of wellness in children and adolescents* (pp.221-241). Washington, D. C.: CWLA Press.
- Engle, S. (2003). College freshman spend less time studying and more time surfing the net, UCLA survey reveals. Higher Education Research Institute. Retrieved May 2, 2009, from http://www.gseis.ucla.edu/heri/02_press_release.pdf
- Fazio, R. H., & Olson, M. A. (2003) Attitudes: Foundations, functions, and consequences. In M.A. Hogg & J. Cooper (Eds.), *The Sage Handbook of Social Psychology*: 139-160. Thousand Oaks, CA: Sage.
- Firth, H., & Britton, P. (1989). Burnout, absence, turnover amongst British nursing staff. *Journal of Occupational Psychology*, 67(2), 55-59.
- Forgas, J. P., & George, J. M. (2001). Affective influences on judgments and behavior in organizations: An information processing perspective. *Organizational Behavior and Human Decision Processes*, 86, 3-34.
- Fowler, K. L. (2006). The relations between personality characteristics, work environment, and the professional well-being of music therapists. *Journal of Music Therapy*, 43(3), 174-197.
- Galantino, M. L., Blaime, M., Maguire, M., Szapary, P. O., & Farrar, J. T. (2005). Short communication: Association of psychological and physiological measures of stress in health-care professionals during an eight-week mindfulness meditation program: Mindfulness in practice. *Stress and Health*, 21, 255-261.
- Gimeno I Domènech, M. M.(2008). The effect of music and imagery to induce relaxation and reduce nausea emesis in cancer patients undergoing chemotherapy treatment.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495-513.
- Hamel, W. J. (2001). The effects of music intervention on anxiety in the patient waiting for cardiac catheterization. *Intensive and Critical Care Nursing*, 17, 279-285.
- Hammer, S. H. (1996). The effects of guided imagery through music on state and trait anxiety. *Journal of Music Therapy*, 33, 47-70.

- Hanser, S. B. (1985). Music therapy and stress reduction research. *Journal of Music Therapy*, 22, 193-206.
- Ivancevich, J. M., Mattesen, M. T., Freedman, S. M., & Philips, J. S. (1990). Worksite stress management interventions, *American Psychologist*, 45, 252-261.
- Iwaki, T., Tanaka, H., & Hori, T. (2003). The effects of preferred familiar music on falling asleep. *Journal of Music Therapy*, 40(1), 15-26.
- Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology*, 71, 630-640.
- Jacobs, S. R., & Dodd, D. K. (2003). Student burnout as a function of personality, social support, and workload. *Journal of Student Development* 44(3), 291-303.
- Johnson, C., Croghan, E., & Crawford, J. (2003). The problem and management of sickness in the NHS: considerations for nurse managers. *Nurse Management*, 11, 336-342.
- Kabat-Zinn, J., Wheeler, E., Light, T., Skillings, A., Scharf, M. J., Cropley, T. G., Hosmer, D., & Bernhard, J. D. (1998). Influence of mindfulness meditation-based stress reduction intervention on the rates of skin clearing in patients with moderate to severe psoriasis undergoing phototherapy (UVB) and photo chemotherapy (PUVA). *Psychosomatic Medicine*, 60, 625-632.
- Keith, D. R., Russell, K., Weaver, B. S. (2009). The effects of music listening on inconsolable crying in premature infants. *Journal of Music Therapy*, 46, 191-203.
- Lafferty, J. (1979). A credo for wellness. *Health Education*, 10, 10-11.
- Lazarus, R. S. (1999). *Stress and emotions: A new synthesis*. Springer Publishing Company, New York.
- Leganger, A., Kraft, P., Roysamb, E. (2000). Perceived self-efficacy in health behaviour research: Conceptualization, measurements, and correlates. *Psychology and Health*, 15, 51-69.
- Le Roux, F., Bouic, P. J. D., & Bester, M. M. (2007). The effect of Bach's magnificent on emotions, immune, and endocrine parameters during physiotherapy treatment for patients with infectious lung conditions. *Journal of Music Therapy*, 44, 156-168.
- Maack, C., & Nolan, P. (1999). The effects of Guided Imagery and Music therapy on reported change in normal adults. *Journal of Music Therapy*, 36, 33-65.
- Mackenzie, C. S., Poulin, P. A., Siedman-Carlson, R. (2006). A brief mindfulness-based stress reduction intervention for nurses and nurse aides. *Applied Nursing Research*, 19, 105-109.
- Madsen, C. K., & Kaiser, K. A. (1999). Preinternship fears of music therapists. *Journal of Music Therapy*, 36, 17-25.

- Magee, W. L., & Davidson, J. W. (2002). The effect of music therapy on mood states in neurological patients: A pilot study. *Journal of Music Therapy*, 39(1), 20-29.
- Maslach, C., & Jackson, S. E. (1986). *Maslach burnout inventory manual* (2nd Rev. ed.). Palo Alto, CA: Consulting Psychologists Press.
- National Institute for Clinical Excellence (NICE) Guidelines (2004) NICE guidelines on depression and anxiety, *Health Summary*, 21, 16.
- Noguchi, L. K. (2006). The effect of music versus non music behavioral signs of distress and self-report of pain in pediatric injection patients. *Journal of Music Therapy*, 43, 16-38.
- Pelletier, C. L. (2004). The effect of music on decreasing arousal due to stress: A meta-analysis. *Journal of Music Therapy*, 41, 192-214.
- Peters, K. K., & Carlson, J. G. (1999). Worksite stress management with high-risk maintenance workers: A controlled study. *International Journal of Stress Management*, 6, 21-44.
- American Journal of Health Promotion*, 14, 403-412.
- Richardson, K. M., & Rothstein, H. R. (2008). Effects of occupational stress management intervention programs: A meta-analysis. *Journal of Occupational Health Psychology*, 13, 69-93.
- Rider, M. S. (1987). Treating chronic disease and pain with music-mediated imagery. *Arts in Psychotherapy*, 14, 113-120.
- De Rijk, A. E., Le Blanc, P. M., Schaufeli, W. B., & de Jonge, J. (1998). Active coping and need for control as moderators of the job demand-control model: Effects on burnout. *Journal of Occupational and Organizational Psychology*, 71, 1-18.
- Robb, S. L. (2000a). Music assisted progressive muscle relaxation, progressive muscle relaxation, music listening, and silence: A comparison of relaxation techniques. *Journal of Music Therapy*, 37, 2-21.
- Salanova, M., Agut, S., & Peiró, J. M. (2005). Linking organizational resources and engagement to employee performance and customer loyalty: The mediation of service climate. *Journal of Applied Psychology*, 90, 1217-1227.
- Scartelli, J. P. (1984). The effect of EMG biofeedback and sedative music on cognitive and emotional components of anxiety. *Journal of Music therapy*, 21, 67-78.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25, 293-315.

- Schwarz, N., & Clore, G. L. (2007). Feelings and phenomenal experiences. In A. Kruglanski, & E. T. Higgins (Eds.). *Social Psychology: Handbook of basic principles* (2nd ed., pp.385-407). New York, NY: Guilford Press.
- Standley, J. M. (2000). *Music research in medical treatment. Effectiveness of Music Therapy Procedures: Documentation of Research and Clinical Practice* (pp. 1-66). Silver Spring, MD: American Music Therapy Association
- Steele, A. L., & Young, S. (2008). A comparison of music education and music therapy majors: Personality types as described by the Myers-Briggs Type Indicator and demographic profiles. *Journal of Music Therapy*, 45(1). 2-20.
- Tan, L. P. (2004). The effects of background music on quality of sleep in elementary school children. *Journal of Music Therapy*, 41, 128-150.
- Teasdale, J. D. (1999). *Metacognition, mindfulness, and modification of mood disorders*.
- Van Der Klink, J. J. L., Blonk, R. W. B., Schene, A. H., & Van Dijk, F. J. H. (2001). The benefits of interventions for work related stress. *American Journal of Public Health*, 91, 270-286.
- Vega, V. (2007). *Personality, burnout, and longevity among professional music therapists*. Unpublished dissertation. Temple University. Philadelphia, PA.
- Wachi, M., Koyama, M., Utsuyama, M., Bittman, B., Kitagawa, M., Hirokawa, K. (2007). Recreational music-making modulates natural killer cell activity, cytokines, and mood states in corporate employees. *Medical Science Monitor*, 13(2), 57-70.
- White, J. M. (1992). Music therapy: An intervention to reduce anxiety in the myocardial infarction patient. *Clinical Nurse Specialist*, 6(2), 58-63.
- Wright, S. C., & Taylor, D. M. (2003). The social psychology of cultural diversity: Social stereotyping, prejudice and discrimination. In M. A. Hogg & J. Cooper (Eds.),
- Xanthapoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121-141.
- Zautra, A. J., Davis, M. C., Reich, J. W., Nicassio, P., Tennen, H., Finan, P., Kratz, A., Parrish, B., & Erwin, M. R. (2008). Comparison of cognitive behavioral and mindfulness meditation interventions on adaptation to rheumatoid arthritis for patients with and without recurring history of depression. *Journal of Consulting and Clinical Psychology*, 76, 408-421.