



Cultural Dance and Health: A Review of the Literature

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ABSTRACT

Physical activity has many physical and mental health outcomes. However, physical inactivity continues to be common. Dance, specifically cultural dance, is a type of physical activity that may appeal to some who are not otherwise active and may be a form of activity that is more acceptable than others in certain cultures. The purpose of this paper is to summarize literature describing the health benefits of cultural dance. Several databases were searched to identify articles published within the last 15 years, describing physical and mental health outcomes of cultural dance or interventions that incorporated cultural dance. In the seven articles reviewed there is evidence to support the use of cultural dance for preventing excessive weight gain and cardiac risk, reducing stress, and increasing life satisfaction. Cultural dance is a practical form of physical activity to promote physical and mental health among subgroups of populations that often have lower amounts of participation in physical activity. There is a need for additional research to isolate how and in what ways cultural dance can be offered to promote physical activity. Practitioners should consider non-traditional forms of physical activity, offered in partnership with community organizations.

BACKGROUND

Physical activity is important to a healthy lifestyle. With health problems such as diabetes¹ and obesity² reaching epidemic proportions, there is a need for programs that encourage regular participation in physical activity among a variety of communities.³ Being overweight is a significant predictor of chronic health conditions such as diabetes, hypertension, and heart disease;⁴ and racial disparities in the prevalence of overweight exist. In the United States for example, African-American girls have a higher Body Mass Index (BMI) as compared to Caucasian girls. The differences were independent of suspected contributing factors, such as

income. One survey conducted between 1999 and 2002 found significant differences in BMI between African-American and Caucasian girls ($p < 0.001$) with rates of 20.4% and 19.0%, respectively). In addition, African-American girls' mean BMI z-score rates increased 0.71 compared to Caucasian girls' increase of 0.30 between the examination periods of 1971-1974 and 1999-2002.⁶

Physical activity programs are one method to prevent obesity, however, not all groups respond well to traditional physical activity programs such as running, walking, and playing competitive sports. For example, young girls report little enthusiasm for tra-

ditional physical activities and gym classes.⁷ Women in minority groups, specifically African-American and Mexican American women, tend to have higher levels of leisure time inactivity than Caucasian women.³ Differences are maintained when controlling for economic, educational, and social factors. A change in physical activity level for all people is needed and, based on research, more so for

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members of minority groups, not only to increase physical activity but also to address rising obesity.^{3,6}

Cultural Dance as a More Acceptable Form of Physical Activity

Non-traditional types of exercise may better meet the activity needs of groups that do not respond to traditional physical activity. Swimming, walking, soccer, football, baseball, basketball, track, and/or cheerleading are examples of physical activity programs that are widely available, yet some individuals still do not partake in these activities. Non-competitive dance may be a more viable alternative for those who view traditional exercise negatively, such as girls who do not like to get hurt in sports or prefer non-competitive forms of physical activity. Dance, in this respect, is a highly preferred physical activity for many girls.^{7,8} In addition, dance provides other benefits as well including an outlet for emotional expression, stress reduction, and creativity. Therefore, cultural dance is one type of non-traditional physical activity that has the potential for positive impact on community health related to both physical^{9,10} and mental health.¹¹⁻¹⁶

Another characteristic of cultural dance making it a marketable alternative to traditional physical activity is that it can easily be tailored to fit the needs of a certain population or to reach a certain goal. Many minority groups report barriers to traditional physical exercise, such as unsafe places to exercise, childcare dilemmas, and unfamiliarity with exercise.¹⁷ Additionally, female family and social roles are seen as hindrances to physical activity.^{18,19} Little equipment is needed for cultural dance and practice space can vary as well.²⁰ In addition, there is a dance style/genre for almost any preference. Cultural dance itself has many different forms based on country of origin, varying options in manner of execution (very traditional to theatrical/dramatic) and is suitable for all fitness levels and ages.

Cultural dance may be a more accepted form of dance than other forms among ethnic minority groups due to social norms. Cultural codes of dress and behavior

may be reinforced during cultural social dances and may be seen as more accepted from a community standpoint. Although traditional forms of physical activity may be stereotyped as male activities in some cultures, cultural dance may be accepted as an appropriate form of physical activity for females.¹⁸ For instance, Native American women identified that participation in traditional tribal dances enabled them to be physically active.²¹ Another benefit of cultural dance reported by participants was its link to culture. Cultural dance may serve as an enjoyable group activity that strengthens ties with others while serving as a reminder of “home.”

Groups may be more likely to participate in physical activities that are tailored to their specific needs. Several studies have demonstrated high recruitment rates when physical activity classes were geared to the musical and dance tastes of certain groups. For example, Whitehorse and colleagues²² designed and tested an intervention to increase participation in physical activity by non-physically active Hispanics through salsa aerobics.²² Additionally, Visram et al.²³ designed an aerobic African dance class to improve cardiac rehabilitation for South Asian women in the United Kingdom, many of whom were of Pakistani and Bangladeshi origin and were Muslim. Cultural dance helped expand participants’ knowledge of dance and culture outside their own culture in a positive environment and through physical activity. Cultural dance maintains its global aspect of celebration and can be appreciated by anyone.

In 2001, Jain and Brown²⁴ systematically reviewed studies of cultural dance. Not surprisingly, few studies were available for review at that time that met their selection criteria. If a study being published in scientific or professional literature was an experimental study, the design included a cultural dance activity intervention; if it was descriptive, the information was provided on the function of a particular dance activity. Still, the authors²⁴ were able to conclude that participation in cultural dance can produce benefits in areas of physical and

mental health. Since the Jain and Brown²⁴ article, more studies have tested the impact of cultural dance. Given the possibility of benefit from this unique form of physical activity, an updated review is needed. This paper summarizes the literature describing the benefits of cultural dance for improving physical and mental health.

LITERATURE REVIEW STRATEGY

Cultural dance is defined in this review as dance particular to a cultural or ethnic group that stemmed from the purpose of celebration, whether it be religious, temporal, or social.²⁴ The review also includes dance forms that have a cultural or community influence, such as step or hip-hop.²⁴ Databases utilized for the review were Academic Search Premier, ERIC, PubMed, and PsychInfo. Articles within the last 15 years describing cultural dance or evaluations of interventions that incorporated cultural dance were included if benefits regarding physical or mental health were described, regardless of study design. The keywords used included cultural dance, ethnic dance, and country/continent specific terms such as African dance.

FINDINGS

Of the 23 articles located using the keywords, seven articles met criteria for selection in this review. Examples of studies not included: (1) gave instruction for implementation; (2) showed no benefit; (3) described amount of time in activity only; (4) did not mention type of ethnic dance; (5) researched neurological brain waves related to dance; (6) were written in a foreign language; (7) did not include cultural dance; or (8) specified recruitment efforts only. The articles included in the review describe the use of cultural dance for preventing excessive weight gain and cardiac risk, reducing stress, and increasing life satisfaction. The findings from these articles are described in more detail in the sections on physical health and mental health. Few studies incorporated an experimental research design. Table 1 summarizes studies and evaluations included in this review.


Table 1. Characteristics of Studies that Integrated Cultural Dance Included in This Review

Lead Author	Year	Type of Study	Benefit type	Ages	Sex/Race	Description of findings
Robinson TN	2003	Randomized control trial	Physical health	8-10 years old	African-American girls	Girls that participated in African dance, step, or hip-hop dance watched less television and had decreased weight concerns than controls
Flores R	1995	Quasi-experimental	Physical health	7th grade students	Predominately African-American boys and girls	Girls decreased resting heart rate and BMI after being exposed to culturally based dance sessions
Engels H-J	2005	Single group pre-post comparison	Physical health	Children and adult family	African-American children and women	Children improved blood pressure and fruit/vegetable intake after African dance activity while women reduced BMI and improved fitness
West J	2004	Quasi-experimental	Mental health	College undergraduate	Men and women, no mention of ethnicity	Participants in African dance had lower stress, had lower negative affect and higher positive affect
Hestyanti YR	2006	Descriptive	Mental health	Children	Indonesian boys and girls	Children that participated in traditional dance did not have trauma symptoms after the tsunami
Harris DA	2007	Descriptive	Mental health	Adolescent	African (Sudanese and Sierra Leonean) males/females	Traditional dances helped with symptoms of anxiety and depression; sessions fostered group identity and to integrate with society after violence
Kim C	2003	Single group pre-post comparison	Mental health	Elderly	Korean women	Life satisfaction increased, lower cardiovascular risk factors while participating in Korean dance

Physical health: Prevention of possible excessive weight gain and cardiac risk

Cultural dance has shown promise in preventing excessive weight gain, especially in members of minority groups. The investigators of the Stanford Girls Health Enrichment Multisite Studies (GEMS)⁵ studied dance as physical activity for African-American girls from 8 to 10 years old. The randomized control trial tested whether introduction of after-school dance classes and a family-based intervention to reduce television viewing reduced weight gain. A novel component of the GEMS pilot study

to prevent weight gain in African-American girls focused on incorporating cultural dance (hip-hop, step, and African) in the treatment intervention group. The dance classes of 45-60 minutes were offered five days a week, with the girls voluntarily attending at a community recreation center. Due to transportation differences between sites, one community sample had 70% average attendance by the girls at least two days a week while the other community sample had only 33% average attendance at least two days per week. Although the GEMS pilot study results indicated no significant differ-

ences in BMI between the intervention and control groups, girls involved in the dance classes significantly lowered their ruminations about body image and demonstrated trends towards liking exercise.⁵ Although actual BMI reduction was not found, the findings are crucial in increasing preference for physical activity and would be assumed to prevent future excessive weight gain.

Flores¹⁰ evaluated a twelve-week school-based intervention program, "Dance for Health," for effects on aerobic capacity, weight, and attitudes of physical activity. The intervention was designed to offer aerobic



activity in a format that would appeal to African-American and Hispanic middle school students. Students made music recommendations; usually hip-hop or contemporary music. Dance sessions occurred three times a week for fifty minutes each, with 10 minutes dedicated to warm-up/cool-down and 40 minutes for moderate-to-high intensity aerobic dance.¹⁰ The intervention was compared to a control situation (usual physical activity sessions) which consisted of mainly playground activities. The program affected boys and girls differently. While there were no significant differences between the boys in the treatment and control groups, there were significant differences in BMI and resting heart rate for girls who participated in the dance class and the control group. The girl intervention group had a -0.8 difference in BMI at the conclusion of the study, while the girl control group had a 0.3 BMI change ($p < 0.05$). Additionally, resting heart rate decreased dramatically in the girl intervention group for a difference of -10.9 compared the girl control group's difference of -0.2 ($p < 0.01$).

An intervention developed by Engels et al.⁹ utilized African dance as a component of physical activity for their 12-week after-school program to help African-American children and a family member to increase exercise and fruit and vegetable consumption. The adult that had volunteered for the program with their child was characteristically female and overweight. The authors did not report the extent to which the African dance component of the intervention was implemented during the intervention (four days per week, approximately one hour long). However, Engels et al.⁹ demonstrated that the adult member group reduced BMI and improved fitness while the children improved blood pressure and increased fruit and vegetable intake.

Mental health: Stress reduction and life satisfaction

West and colleagues¹³ examined changes in psychological and neuroendocrine responses to Hatha Yoga, African dance, and no physical activity (biology class control group) among college students. The study

was novel in that a control group and two types of physical activity were compared. The primary outcome measure was salivary cortisol levels sampled during a consistent time period, usually an hour-long class. Levels were also sampled on a more limited scale during time periods that would be least likely affected by seasonal changes and during difficult schoolwork periods. Self-reported stress and affect were measured. College students who participated in African dance and Hatha Yoga demonstrated lower stress and less negative affect after the classes and compared to the control condition. Those who participated in African dance also showed higher positive affect postintervention than before intervention, a benefit not observed for the Hatha Yoga group.¹³ Cortisol levels at follow-up for the classes increased for the African dance group, decreased for the Hatha Yoga group, and remained unchanged in the control. Increased cortisol levels may have been due to the corresponding physiological arousal related to the type of movements in African dance.¹³ Although both physical activity conditions resulted in physical benefit, possible differences could have been explained by the nature of the activities; yoga incorporates focused breathing and stretching while African dance is a vigorous cultural dance form.

Cultural dance has the potential to benefit youth during stressful situations. After tsunamis ravaged Indonesia in 2004, a study by Hestyanti²⁵ demonstrated that the resilient children often had access to or participated in traditional activities including group dance to "channel their energy positively and help them to bond with peers [p. 306]."²⁵ These children were free from trauma symptoms based on a child trauma symptom checklist at the time of the study. The author did not cite statistical results or emphasize the role of cultural dance in the study.

Trauma effects on children through violence can be especially damaging to the children and their progression into adulthood. Harris²⁶ described the effects of two Dance Movement Therapy programs that utilized traditional African (Sudan and Sierra Leone)

dances to aid adolescent torture survivors. In the Dinka Initiative to Empower and Restore (DIER), Sudanese refugees, settled in Pennsylvania, gathered for two-hour sessions where members themselves performed the dances and songs from their African homeland without strict structural boundaries from the author, who instead was viewed by the youth as a dancer and student counselor. The program sought to foster a sense of appropriate cultural behavior in the form of traditional dances that are rooted in a way to release inner frustrations and emotions and/or as a way to cope with uncontrollable circumstances.²⁶ Although the evaluation did not utilize strict experimental methodology, the author reported that DIER sessions seemed to enhance the group's resilience and provided a unique opportunity for adaptation to life in the United States among ethnically-similar peers which reflected their culture's tenet of group harmony. In fact, traditional Dinka male-female roles in dance were often changed in the program, with females taking on the task of drumming or males dancing with a group of females around him. The author attributed this to acculturation to life in the United States.²⁶

The Sierra Leone Dance Movement Therapy program consisted of four small groups for survivors of war in the Sierra Leone Kailahun district (many of them child-soldiers or survivors of horrific events). Four differing groups were formed consisting of: (1) 11 males; (2) six females between the ages of 16 and 17; (3) eight young Muslim male torture survivors; and (4) 12 former child-soldiers. For the group of females, declines were demonstrated between pre-intervention and a three-month program for level of elevated arousal and avoidance symptoms and symptoms of anxiety and depression as indicated by program participant self-reports. The girls reported fewer nightmares and flashbacks at the end of the intervention.²⁶ The 12 former child-soldiers were well seasoned in violence since all had been orphaned and had been involved in warfare since the age of 13. The goals for this group were to reduce posttraumatic



symptom expression and for the former child-soldiers to feel whole as a person and part of the community. The author noted that part of the intervention with this group utilized lively movement to Sierra Leonean popular music and that, in fact, the youth's previous war experiences of violence was reinforced by their adult leaders with forced celebratory activities such as dancing and singing. Blunted affect accompanied these youth's stories of atrocities and often they had difficulty being able to recognize their own feelings and being able to express empathy. As the sessions progressed, the youth who were once reluctant to delve into their feelings and interact were interacting in their movements together and spoke more confidently to one another. Assessments at one, three, six and twelve-month intervals demonstrated dropping levels of anxiety, depression, and aggression symptoms. A sense of group identity and trust emerged to the point that a group member initiated a desire to feel more accepted into the community. The youth even enacted a role play to their new community depicting their lives, and asked for forgiveness and acceptance as the new community's children.²⁶

Harris²⁶ explains benefits of dance movement therapy that have not been demonstrated by empirical outcomes. Partly, results were not presented since he was a collaborator and a non-profit agency did the assessments and measurements. Although the author did witness first-hand the changes in these traumatized individuals, he held the dual role of observer and therapist. Tailoring the therapeutic dancing to these youth inevitably had a positive result.

Cultural dance can also be a means to address mental health issues for older adults. As the world becomes more founded in work and technology, older populations are living longer and relying on non-family care. In Korea, traditional dance was incorporated into a health promotion program developed by Kim et al.²⁷ to help elderly women with cardiovascular risk factors and life satisfaction. The women participated in the Korean traditional dance, tailored to elderly participants, four times a week for 45 minutes in

conjunction with educational classes about topics such as hypertension management, stress management and importance of a healthy diet for three months. Participants in the study²⁷ had lower scores on cardiovascular risk factors at the end of the intervention, but differences were not found three months after the intervention ended. However, the change in life satisfaction was significant at the end of the intervention and remained significant three months later, demonstrating greater satisfaction with life.²⁷ This finding may have been related to the social interaction that came with the intervention of dance and educational classes.

IMPLICATIONS FOR HEALTH EDUCATION

Cultural dance is a practical form of physical activity to promote physical and mental health among subgroups of populations that often have lower amounts of participation in physical activity. Descriptive reports and experimental studies covered in this review of the literature document that cultural dance has strong ties to health benefits and stress reduction for participants of varying ages and backgrounds. Youth, adults', and older adults' reactions to cultural dance have been positive and serve as evidence to promote cultural dance as an activity to be implemented in schools, community centers, and other venues. Cultural dance has shown promise in reducing problematic weight gain, stress management, increasing interest in physical activity, and increasing life satisfaction. In fact, cultural dance was a recommended form of physical activity for women in the Women's Cardiovascular Health Network Project since "many populations have unique cultural or perceived barriers to physical activity" [p.130].¹⁷

Cultural dance may have an added benefit for minority individuals as it can help enhance cultural awareness or pride in addition to increasing physical activity and alleviating stress in these groups. Observing cultural dance exposes people to culture of groups some people may not have contact with. This would be the beginning of learning to appreciate differences among cultures

in a common activity that combines all people, dance. In addition, cultural dance allows people to learn about outside cultures. In-depth knowledge about cultures portrayed through dance and formal instruction would provide a world view to participants and serve as a platform for cultural learning by exposing it to the community. An article in *Dance* magazine featured a *folklórico* program at a Dallas high school.²⁸ One student commented that she had learned a great deal about her own culture because of *folklórico* dancing and obtained more confidence.²⁸ Possibly the reinforcement of cultural identity through dance activity may increase self-esteem and contribute to other positive behaviors.

Of the 23 articles containing keywords related to cultural dance, few described or demonstrated the benefits of this type of dance. Instead, the papers described the nature of recruitment efforts, participants' observations of the cultural dance classes, method for instruction, personal opinions about cultural dance without mention to specific benefit, showed no benefit, described amount of time in activity only, or did not mention type of ethnic dance. This drastically limited the number of studies included for review. Of the studies included in the review, five of the seven incorporated a scientific study design. Although the two descriptive studies qualitatively describe the utility and benefit of cultural dance, dance as an organized activity may not be incorporated into communities as rapidly if scientific methods are underutilized. Six years after the Jain and Brown²⁴ study, there are still few studies of cultural dance. Only seven studies met the criteria for selection in this paper. The criteria for selection may have been too strict, yet the author felt there would be sufficient studies based on the criteria for selection. There is mounting evidence that cultural dance appeals to unique populations and produces desired health benefits. Still, there is insufficient empirical evidence to encourage widespread funding and implementation of cultural dance programs.

Sufficient comparable data were not



available for meta-analysis of existing studies. The review is limited from one author's point of view as a dancer in the academic field versus that of a health educator or physical activity researcher or with the collaboration of other authors. Studies where cultural dance was part of an intervention were included in the review due to limited studies on the topic, and conclusions on cultural dance's impact could not be exclusive. Conclusions have to be qualified because there were very few experimental designs.

Health educators can be more receptive to physical activities that often do not fit the mold. Cultural dance may be one viable option for populations or subgroups that may not respond to the traditional gym class or that say that they do not like to exercise. Investigations into local community dance groups may lead to sources of information and referrals. Often community dance groups are known by word-of-mouth or through religious or civic organizations. Becoming knowledgeable about the diverse community in the health educator's field may add to the repertoire of physical programs available.

Cultural dance for physical health should appeal to the musical tastes of the group. Students should be asked for their input on what type of music conveys their heritage or what cultural dances they engage in. For example, Indian social dances use sticks similar to rhythm sticks and can be a means to engage in physical activity. If a student seems to be isolated from group activity, cultural dances that they are familiar with may be activities that draw them in for participation. When researching cultural dance information and practices, health education practitioners should tailor selection of cultural dance/music to the selected physical activity or stress reduction goals. In-depth research before presentation of material is crucial; not all cultural dance forms are the same or would appeal to the target group. For instance, if there is a group of young Hispanic students with ethnicities from various countries, *cumbia*, *reggaeton*, *salsa*, or *bachata* dance might be better received than a region-specific dance such

as *Las Chiapanecas* from Chiapas, Mexico. The Internet is an easily searchable source for dances that span the globe and time frames; there are many instructional DVDs taught by experienced dancers/professionals. Often dance teachers are willing to educate others on the basics of their specialized area of dance whether it is Irish, West African, Cambodian, or Northern Native American and are to be utilized as a valuable resource or consultant.

In a report to the nation by Bonbright and Faber²⁹ on the research priorities for dance education, multicultural learning and/or world dance was listed as the first issue in need of more research. Only 8.2% of dance research studies in the period from 1926 to 2002 were on the subject of multicultural dance education or world dance.²⁹ As stated in the report, teaching methods needed to adapt to minority populations and the role and variety of multicultural/world dance education is no exception. Additional studies are greatly needed in the area for cultural dance. Cultural dance has been shown to have an impact in health on the participants. Advice for future studies would be to incorporate an experimental design and use culturally appropriate and dance-genre appropriate measures. Sensitivity to cultural norms, and the use of validated measurement instruments, would add greatly on the scientific merit of cultural dance research. In addition, target population needs and demographics should be contemplated when designing an experiment that involves culturally sensitive material. For example, the researchers conducted focus groups for the *La Vida Buena* programs.²² The GEMS pilot study⁵ offered three forms of cultural dance. Location and transportation are important when trying to attract potential students. As in the GEMS pilot study,⁵ transportation problems hindered many participants from attending the classes. Especially for youth, free transportation to and from classes can lead to higher attendance rates.

In summary, there is evidence to support the conclusion that cultural dance can promote health and increase cultural awareness. Cultural dance should be studied as a tool to

help combat physical inactivity, cardiac risks, stress, and negative affects. With a growing problem like pediatric obesity, there should be more published studies that involve innovative physical activity, such as dance activity, as a component for overweight youth. This review adds to the existing literature on cultural dance by combining findings of benefits in different areas.

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