

Effects of Using Physical Activity Applied Dancing Arts Model to Promote the Well-Being of the Elderly

Pravit Rittibul¹, Phatcharaphan Chaiyasung²

Abstract

This article aimed to study Effects of using Physical Activity Applied Dancing Arts Model to Promote the Well-Being of the Elderly. This is a quantitative research using the One Group Pretest-Posttest Design model of physical activity using applied dance, and a satisfaction questionnaire. The results of the study showed that form of exercise activities using applied dance to promote the well-being of the elderly. It consists of a total of 7 activities. Independent movement principle related to emotions and feelings with music. The activity was spent 16 times, 1 hour 30 minutes each. Comparative results of the mean health scores in each aspect before and after the experimental use of the exercise activity model using applied dance poses. It was found that the mean score after the experiment was higher than before the experiment. The statistical significance at the .01 level. The satisfaction in the activities was at the highest level. This research reflects the role and importance of bringing the science and art of dancing and music to apply the principles of body movement in expression to cause development or development of the physical, emotional, social and intellectual, and most importantly is to build relationships within society between individuals.

Keywords: *Physical Activity, Applied Dancing Arts Model, Well-Being of The Elderly, Sdgs, Good Heal and Well-Being.*

Introduction

Dance was an ancient aesthetic of the prehistoric world. It is a tool for expressing feelings that can promote an organized environment sophistication using the body and mind to express stories with natural demeanor or is fabricated with the emotions and feelings of the performer or of the characters. Humans have used the development of their natural expressions and let the dancing arts perform various activities and functions in their society in order to promote wisdom and thinking (Wanwichai, 2011), use various arts to encourage seeking and admiring the exquisite beauty peaceful life seeking good and beautiful things and admiring or consuming tragic art. Therefore, it is a good indicator of the cultural identity of the society. Dance is a dancing that continuously combines three body postures: Body parts consist of hands, arms, legs, feet, fingers, head, body parts, and faces. (Wirunrak, 2004; Prompuay and Adisaiparadee, 2014; Rittibul, 2015).

Nowadays, there are more advancements in technology, especially medical treatment technology. At present, the roles and functions of dancing arts have been brought forward to integrate with the well known healing principles or so called, Dance Movement Therapy (DMT) is a branch of science that integrates the main movement processes with psychiatry. The medical report describes movement therapy or dance therapy (DMT) using movement as a therapeutic tool to promote emotional, cognitive, cognitive, physical and social development of an individual (ADTA, 2013). DMT and Body Psychotherapy share perspectives on the wholeness of the body, mind, and spirit in the sense that the body affects the mind. On the other hand, the use of movement observation and movement analysis based on Rudolf von Laban's (1879-1958) Effort-Shape system (Laban, 2011), allows dance movement therapists to explain the fundamental principles in terms analysis of motion however, it lacks a spatial definition (Pierce, 2014). Laban-based motion analysis is a complex system for observing motion. Movement analysis captures the body language of the individual

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and conveys it into spoken language (Levy, 2005). It attempts to reflect the quality of movement and method of movement by including factors such as space, weight, time and fluidity in relation to emotion and emotion of inner feelings (Laban, 2011; StantonJones, 1992) Physical gravity affects a person's movement, especially in connection with the body's center of gravity and the basis of each person in movement therapy is different (Meekums, 2002). Such concepts and forms have been spread to Thailand through dance therapy to help heal effectively accomplished in many areas, almost every stage of human life. Whether at an early age most of the children with special needs are in school or special education center and adults who are patients in a hospital or rehabilitation facility and old age, most of those receiving therapy are people with underlying diseases balance development, muscle exercise (Niyomtham: 2005), was studied from various research reports such as the effect of dramatic therapy on sleep quality among the elderly in the elderly club that develops a positive image. Improve self-esteem, reduce stress, anxiety and depression, reduce isolation, chronic illness and muscle spasms increase communication skills and encourage them to know about a better way of life (Prachanusorn, 2005). Muscle exercise in the elderly by using therapeutic dance activities for the Thai Puan community, Nakhon Nayok province of Pianseethong et al., 2018. Development of Thai Puan Dance Therapy Activities with aerobic principles to solve the problems of the elderly with poor sleep quality of Junsawek et al., 2019. Guidelines for organizing local arts and culture activities to promote health of the elderly of Wong-Aree, (2018). The effect of Nora dance training on strength and balance in the elderly of Khunthong, 2011. The effect of exercising with boxing dance ancient applied to physical fitness in Thai elderly: a pilot study of Srisamai et al., 2017. The effect of exercise using dance postures and applied Isan folk songs on balance ability and leg muscle strength in the elderly in Mahasarakham province of Srimuang et al., 2019. The effect of exercise by dancing postures accompanying applied to Isan folk songs on maximal oxygen consumption and satisfaction in the elderly of Manimanakorn et al., 2001. It can be considered that the main movement process is integrated with DMT psychiatry which is one approach that can be addressed from social, emotional, cognitive and physical aspects in terms of many cultures that use movement or dance in different ways can be in a variety of styles, whether in traditional or contemporary styles that can be applied appropriately and was built on the basis of systematic human development by emphasizing human centered development in both behavior, mind and intelligence in order to be aware of the situation, such activities are activities that can develop human beings to be complete human beings and is a sustainable development as well (Rapley, 2003).

From the aforementioned information, it can be seen that important physical, mental and social problems may affect the quality of human life. Therefore, the researcher became interested and foreseen the importance of applying dancing arts and music to be used as exercise activities to promote the well-being of interested elderly people and have demand. It also reflects the role and importance of bringing the science and art of dancing and music to apply the principles of body movement in expression to cause development or development of the physical, emotional, social and intellectual, and most importantly is to build relationships within society between individuals to create activities to be used for correction that will result in a change in a good direction able to adjust their own conditions in doing activities with others in order to achieve health in living together with others. In addition, the development of exercise activities for the elderly to be effective and efficient, creating value for the society of the nation with the goal of developing manpower for sustainability. It is consistent with the sustainable development 17 goals to transform the world. In the third aspect, Good Health and Well-Being, in creating activities to develop human resources for life which are healthy and can also promote well-being for all people of all ages by increase health-related financing to come to develop training and provide knowledge in self-treatment and self-care for people in the country, especially in least developed countries and small developing states. Empowerment for every country especially in developing countries on early warning of risk reduction and management of health risks at national and global levels. Department of Economic and Social Affairs. (2023)

Methods

Defining the Population and the Sample Used in the Research

The subjects used in this research were elderly people in the Center for the Development of the Elderly Life Quality, Fa Rangsit Village, Bueng Yitho Sub-district, Thanyaburi District, Pathum Thani province, using a purified selection method. The sample group must be selected by the staff in charge of the center and are willing to participate in activities under the supervision of 30 staff of the center.

Form of Research

The health outcomes of the elderly before the experiment	Exercise activities with applied dance	The health outcomes of the elderly after the experiment
O ₁	X	O ₂

The experimental plan used in this research is One Group Pretest-Posttest Design, which are:-

X = Exercise activities using applied dance

O₁ = The health outcomes for the elderly before experimenting with exercise activities using applied dance

O₂ = The health outcomes for the elderly After experimenting with exercise activities using applied dance

Research Tools

Health assessment form. Evaluation scale, 5 levels, 40 items.

Forms of exercise activities with applied dances, consists of a total of 7 activities, takes time to complete 16 activities, 1 hour 30 minutes each time.

A questionnaire on the satisfaction of the elderly with the form of physical activity with applied dance. Evaluation scale, 5 levels, 18 items.

Data Collection

The researcher coordinates with the staff in charge of the center to contact the elderly target group to be a sample used in research, clarify details, activity stage along with signing the consent form to show their intention to participate in this activity.

Do activities according to the form of exercise with applied dance moves.

Use the health assessment form to assess the health after participating in the activity and the satisfaction questionnaire on exercise activities with applied dance.

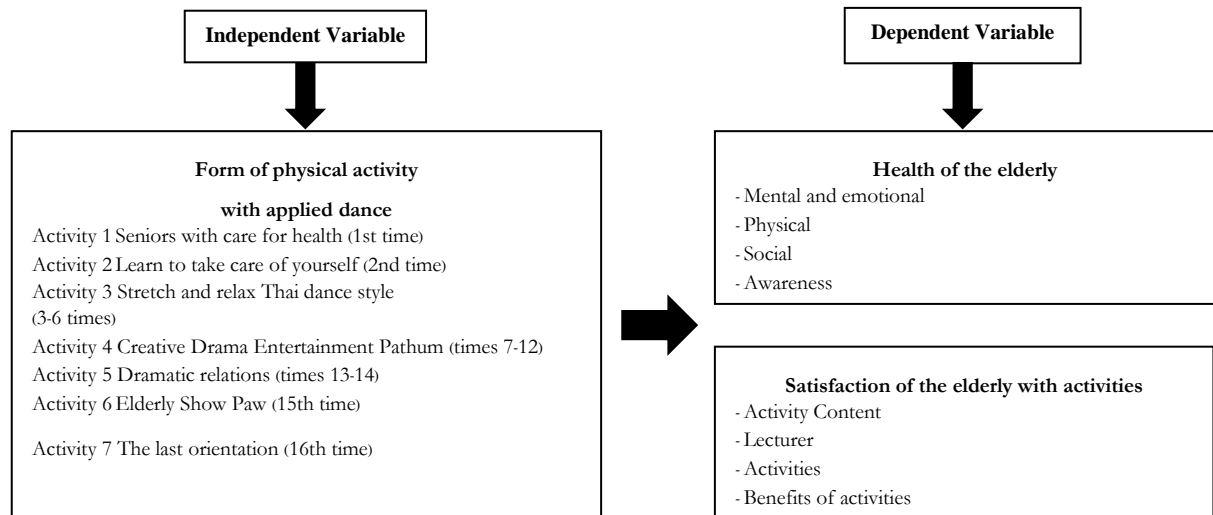
Analyze the statistical data, summarize the results, and discuss the results.

Data Analysis

In this research, the researcher analyzed the data collected from the sample by using a ready made statistical program to analyze data and there are steps in the analysis. By taking the collected data from the questionnaire, classifying it, changing the data into a numerical code and then entering the data into the

program to conduct data analysis by comparative analysis of experimental results before and after using the activity model. The T-Test for Dependent Samples and the satisfaction with activity patterns level of severity were used. The basic statistics, namely mean and standard deviation were used and the results were discussed in the form of an accompanying table.

Conceptual Framework for Research



Results

Comparative Analysis Results of The Experimental Results On The Health Of The Elderly Before And After Participating In The Activity.

Table 1. Health Scores in Each Aspect Between Before and After (Pretest-Posttest). The Use of Exercise Activities with Applied Dance Moves to Promote the Well-Being of The Elderly. (N = 30)

Assessment Items health	Assessment results	n	\bar{x}	SD	t	sig
Mental and emotional health	Before	30	30.53	SD ₁ = 3.24	16.36**	.000
	After	30	43.10	SD ₂ = 3.61		
Physical health	Before	30	29.67	SD ₁ = 2.88	25.95**	.000
	After	30	46.40	SD ₂ = 2.14		
Social well-being	Before	30	30.93	SD ₁ = 2.66	19.77**	.000
	After	30	44.67	SD ₂ = 2.37		
Awareness health	Before	30	30.13	SD ₁ = 2.00	27.94**	.000
	After	30	44.87	SD ₂ = 2.10		

**p<0.01

The results of data analysis in Table 1 showed that the mean health scores before and after the experimental use of exercise activities with applied dancing postures were divided into 4 aspects as follows:-

Part 1 Mental and emotional well-being before experimenting with the exercise activity model with applied dance. The mean score was 30.53, the standard deviation was 3.24, which was considered moderate and after experimenting with the exercise activity model with applied dance with a mean score of 43.10, a standard deviation of 3.61, considered the highest level.

Part 2 Physical health before experimenting with the exercise activity model with applied dance. The mean score was 29.67, the standard deviation was 2.88, which was considered moderate and after experimenting with the exercise activity model with applied dance with a mean score of 46.40, a standard deviation of 2.14, considered the highest level.

Part 3 Social well-being before experimenting with the exercise activity model with applied dance. The mean score was 30.93, the standard deviation was 2.66, which was considered moderate and after experimenting with the exercise activity model with applied dance with a mean score of 44.67, a standard deviation of 2.37, considered the highest level.

Part 4 Awareness well-being before experimenting with the exercise activity model with applied dance with a mean score of 30.13, a standard deviation of 2.00, considered moderate and after experimenting with the exercise activity model with applied dance with a mean score of 44.87, a standard deviation of 2.10, considered the highest level.

When comparing the mean health scores in each aspect before and after the experimental use of physical exercise activities with applied dancing postures. It was found that the mean scores after the exercise activity model experiment with applied dancing were higher than before the exercise activity model experiment with applied dancing. The statistical significance at the .01 level can be shown as a graph as illustrated.

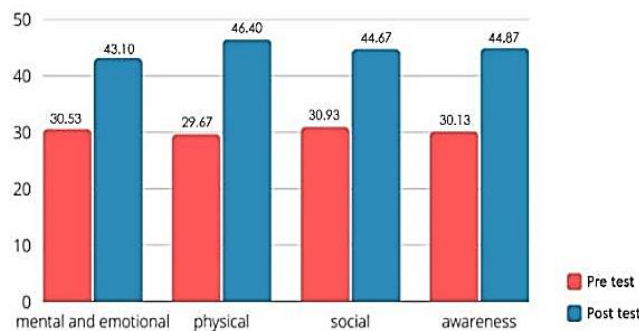


Figure 1: Comparison of the Experimental Results on the Well-Being of the Elderly Before and After Participating in the Activity.

The Result of The Evaluation and Analysis of The Level of Satisfaction of The Elderly Toward Exercise Activities with Applied Dance.

Table 2. Mean And Standard Deviation Satisfaction of the Elderly with Exercise Activities with Applied Classical Dance After Participating in the Activity. (N = 30)

Assessment Items	\bar{x}	SD	level of satisfaction
Activity Content			
Be clear, be able to learn and practice	4.65	0.64	the most
Meets the objectives of the activity	4.60	0.50	the most

Modern	4.45	0.56	very
Useful to participants	4.70	0.47	the most
Sum	4.60	0.55	the most
Lecturer			
To provide knowledge that meets the objectives	4.55	0.51	the most
Techniques and ability to present	4.65	0.61	the most
Motivating participants into the content	4.75	0.55	the most
Take care and pay close attention to the participants.	4.70	0.66	the most
Answering questions straight to the point	4.55	0.69	the most
Sum	4.64	0.61	the most

Assessment Items	\bar{x}	SD	level of satisfaction
Activities			
Activities suitable for participants	4.60	0.50	the most
Activities are appropriate to the content	4.75	0.57	the most
The sequence of activities is continuous	4.50	0.57	very
The duration of the event is appropriate	4.65	0.67	the most
Sum	4.63	0.58	the most
Benefits of activities			
Knowledge <i>before</i> activity	1.90	0.85	less
Knowledge <i>after</i> activity	4.65	0.49	the most
Participants receive a well-being promotion according to the objectives set	4.65	0.44	the most
Participants can apply their knowledge in real life	4.75	0.59	the most
The benefits are tailored to the needs of the participants	4.80	0.51	the most
Sum	4.15	0.58	very
Overall Satisfaction	4.51	0.58	the most

The results of data analysis in Table 2, found that the satisfaction of the elderly with exercise activities with applied dance post-joint activities was generally at the highest level. The mean was 4.51, the standard deviation was 0.58, and each aspect could be considered as follows:-

The satisfaction of the elderly with the exercise activities with the applied classical dance on the overall activity content was at the highest level. The mean was 4.60, the standard deviation was 0.55.

The satisfaction of the elderly with the exercise activities with the applied dance moves towards the lecturer as a whole was at the highest level. The mean was 4.64, the standard deviation was 0.61.

The satisfaction of the elderly with exercise activities with applied classical dance on the overall activities performance was at the highest level. The mean was 4.63, the standard deviation was 0.58.

The satisfaction of the elderly with exercise activities with applied classical dance on the overall benefits of the activities was at a high level. The mean was 4.15, the standard deviation was 0.58. can be shown as a graph as illustrated;

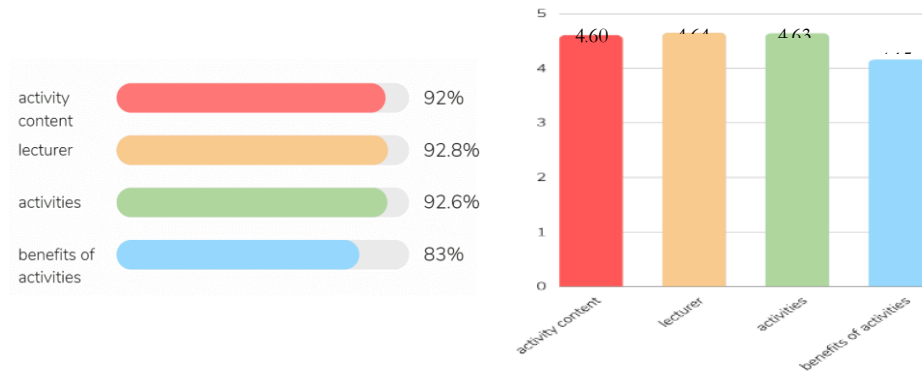


Figure 2. The Level of Satisfaction of the Elderly Towards Exercise Activities with Applied Dance.

Discussion

Comparison of the Results of The Experiment on The Health of The Elderly Before and After Participating in The Activity.

Comparison of the health status before and after the experimental exercise form using applied dancing on each side found that mental and emotional aspects after the experiment were at the highest level. The physical aspect after the experiment was at the highest level. The social aspect after the experiment was at the highest level and the awareness after the experiment was at the highest level. When comparing the mean health scores in each aspect before and after the experiment. It was found that the mean scores after the experiment were higher than before the experimental form of exercise activities with applied dance moves. The statistical significance at the .01 level is in line with the hypothesis. It is consistent with Wanwichai, 2011, who mentioned the use of dancing arts therapy as a positive image development, improve self-esteem, reduce stress, anxiety and depression, reduce isolation, chronic illness and muscle spasticity, increase communication skills and encourage them to know about a good life and it is also in line with the research work of Julasek et al., 2019, to study the development of Thai Puan dance activities based on aerobic principles in order to solve the problem of the elderly with poor sleep quality and Pianseethong et al., 2018, studied muscle exercise in the elderly by using dance therapy activities for the Thai Puan community, Nakhon Nayok province. After using the activity, it resulted in a better quality of the elderly. In addition, the researcher also reflects on the role and importance of bringing the science and art of dancing and music to apply the principles of body movement in expression to cause development or prosperity, physical, emotional, social and intellectual and most importantly, it is the relationship within society between individuals to create activities to be used for correction that will result in a change in a good direction which is able to adjust their own condition in doing activities with others in order to achieve good health in living with others in accordance with Wong-Aree, 2018, studying the context and problems of the elderly in Hua Saphan village community. Ban Yang sub-district, Phuthaisong district, Buriram province and creates activities in folk art and culture, and a series of folk dance performances for local dance to worship Luang Pu Khao to promote the health of the elderly, the community has good cultural capital. The researcher therefore created the script of Saraphanya along with the design of 4 movement activities, using the style of narrative choreography based on Luang Pu Khao's history to be easy to remember and to stimulate interest in the elderly. The elderly who participated in the activity were enthusiastic and showed joyful emotions throughout the movement activities and from the assessment, it was found that the quality of life

of the elderly had a higher mean score and it is also in line with the research of Khongprasert, 2011, studying the effect of a Thai dance exercise program on mobility and quality of life in Parkinson's patients. It was found that a Thai dance exercise program can help Parkinson's patients to improve their mobility and quality of life. Including being able to be implemented in all aspects without the need for any equipment both privately and group training and a research by Srimuang et al., 2019, studied the effect of exercise using dance postures and applied Isan folk songs on the ability to balance and leg muscle strength in the elderly in Maha Sarakham province. It was found that an exercise training program using dance postures combined with applied Isan folk songs was one method to be used to develop the ability to balance and strengthen the knee extensor muscles including weakness, foot response time and foot reaction time can be improved in the elderly, it is also consistent with Ching et al., 2000, who studied the effect of Tai Chi on the development of muscular strength and endurance in the elderly group was found that it could improve the strength and endurance of the stretched muscles. In addition, the characteristics of exercise by dancing Thai boxing that are standing on one leg are mostly like training strength, in which these two components work together in the development of physical performance and improve the balance of the body for better efficiency (Burke et al., 2010).

Assessment of the Level of Satisfaction of the Elderly Towards Exercise Activities with Applied Dance.

The results of the assessment of the level of satisfaction of the elderly with exercise activities with applied dance after participating in the activities were generally at the highest level. Because the researcher has applied Thai classical dance moves to the rhythm of the music. It is another method that can be adapted and applied as an aerobic exercise. Because the dance posture is independent, there is no fixed limitation of both hands and feet, most of them mimic nature. This is consistent with Samakbutr, 1995, which can be seen that the dance poses are similar to aerobic exercise when used with the elderly who are fond of Thai fun. Elderly people will be able to practice different dance moves which is not difficult because it's a basic dance. Almost all Thai people are familiar with it so it can be easily practiced and understood. The dance has many variations of leg movements which will help promote the strength and endurance of the leg muscles, knee joints, ankles. In the arm part, there is a posture that coordinates the movements of both arms alternately and relates the legs to the rhythm of the music. This is a training to promote the work of muscles to coordinate the whole body, including the nervous system of the brain to work in coordination. It is also consistent with Manimanakorn et al., 2001, which will result in the ability to have good balance for the elderly and help prevent accidents from falls. It also promotes the cardiovascular system to work better, resulting in better overall physical performance. In addition, the applied dance moves also have music and a fun rhythm. It can create mental happiness and help reduce depression in the elderly. As for the rhythm of the song, it can be adjusted fast or slow as appropriate for the elderly in each group and can also bring the exercise program using dance moves with applied music to rural communities in many areas without having to cost of buying exercise equipment and also to preserve and carry on the culture of being Thai in another way, and in accordance with Stewart (1999 referenced in Sawangmek, 2005), asked 202 elderly people about the activities that can meet the needs in various fields. The study found that 84 percent of all respondents. It was seen that activities that had a format that encouraged the elderly to express themselves, such as dancing, group discussions can reduce stress levels and anxiety can relax and Macceleland, 1979, conducted research on elder adults by using a test, it was found that the elderly were in a state of stress by using music media in conjunction with activities. The results showed that using music in activities can release emotional tension, develop a happy mood and reduce anxiety. It is also consistent with Beal (1986 referenced in Aungchokchai, 2009), studying the effects of dance or movement programs on improvement for elder adults who exercise. To demonstrate that a rhythmic exercise program of major muscle groups was found to reduce anxiety and depression in the elderly. By using the elderly group aged between 60-81 years, by considering the use of dance performances as a model for movements to develop the elderly and

Zhan (1992), described the components of quality of life as: life satisfaction. It is a response to changes in external conditions which influenced by people's background, personality, environment and health status, what a person perceives as possessing. It lies between the desires, expectations, desires, wishes, and achieved accomplishments. The self-concept is a belief and feeling that people one has to oneself. These beliefs come from perceptions, particularly perceptions of other people's reactions to one's behavior one about oneself in a moment in terms of health and bodily function. It is about the relationship between self and the person and the environment. In addition to assessing clinical symptoms also assessed the perception of a person's health status related to health conditions and the relationship between family and society, and also consider social influences. Environment and politics as well, and social and economic aspects are occupational assessments, education and income which is set as a social standard.



Figure 3. Exercise Activities with Applied Dance to Promote the Well-Being of The Elderly

Limitations of the Study

The limitation of this study is because the sample group is elderly, some of whom have underlying diseases that cannot be controlled and have complications during activities and the form of exercise posture used by the researcher as a form of dance posture in Thai dramatic art. As a result, the elderly are unable to perform some positions and in performing each posture at a pace, the elderly were unable to perform or change postures at a fast pace. Therefore, exercise postures must be modified and adapted to use contemporary Thai music developed by the researcher in accordance with slow rhythm music therapy, easy listening as a controlled rhythm in practice to be in line with the gestures of the elderly. At some stages of activities, some elderly people feel embarrassed and dare not express themselves and spending too much time doing activities. Therefore, this causing the researcher to modify the format by dividing into groups to show to increase confidence and pride and appreciation in oneself and others as well as learning to work as

a team to develop social skills and reduce the time spent doing activities to be in line with the activity plan that has been laid out.

Implications For Policy, Practice and Further Research

Future work should expand the sample size to a larger size and compare the benefits of physical exercise activities with applied dance combined with other developmental or therapy programs. The studies should examine the short-term effects of physical activity on frequency, duration and intensity. The exercise-related activities should be carried out along with the development of concentration at the same time, should increase the duration of doing more activities because activities can make the elderly feel relaxed from stress able to adapt to social environments and can live with others. Also, should be further developed by using this form of activity to benefit, increase happiness, reduce stress and increase life skills. The results of this research are beneficial to various agencies. This knowledge can be used to develop strategies for organizing activities that promote the quality of life of the elderly to be used as a guideline to support and strengthen awareness of the use of dance gestures to move the body with the sound of music in an applied form. In addition, institutions that offer teaching and learning in dance and music. Teaching activities should be organized in the course to integrate the science of dramatic arts and music to create social benefits in the teaching and learning curriculum.

Conclusion

This study is part of a study that analyzed the behaviors and needs for exercise in older adults. The current situation is entering an aging society due to changes in the population structure which affect the economy and society of the country. Therefore, planning is required and create innovations which promotes the quality of life of the elderly especially innovation in the wisdom of performing arts or dance and music which the elderly can easily access and are familiar with life throughout the ages from birth to the present both during normal and special times. Whether is for entertainment, socializing, exercising, assembling in the ritual, disseminating the identity of the community, education that the elderly can access and use for further development as well (Dorson, 1972). Therefore, the application of dancing arts and music to be used as an innovation in organizing activities for learning exercise to promote the well-being of the elderly in society and communities who are interested and have a desire to act together. It also reflects the role and importance of bringing the science and art of dancing and music to apply the principles of body movement in expression to cause development or development of the physical, emotional social and intellectual, and most importantly, to build relationships within society between individuals to create activities to be used for correction that will result in a change in a good direction and able to adjust their own conditions in doing activities with others in order to achieve health in living together with others (Power, Bullinger and WHOQOL Group, 2002), and also published in public areas to provide motivation for learning for the elderly. This in turn instills the self-esteem of the elders who have participated in the expression, which is an important part of the formation of love, unity, understanding and strengthening the ability to adapt and learn culturally different from each other which is regarded as enhancing the quality of life which able to convey and demonstrate a distinctive and beautiful way of life, whether it is dress, dance, art, music, all of these things reflect their local identity. Guidelines for enhancing the quality of life for the elderly with applied dancing arts mentioned above both public and private organizations, local organization, senior school, senior citizens club be able to apply the guidelines for creating policies and applying them to all areas of Thailand, because the dance and music in each locality represents a unique identity that is different. In addition to enhancing the quality of life for the elderly, it also promotes and preserves the national culture to continue to exist as well.

Biographical Note

Pravit Rittibul is a lecturer and researcher in the Program in Thai Classical Dance Education at the Faculty of Fine and Applied Arts, Rajamangala University of Technology, Thailand, who graduated in performing arts. While studying, he became interested in using the performing arts to serve society by doing a thesis on the study of the use of dramatic therapy on stress among first-in-a-young male inmates in a correctional institution, Pathum Thani province. After completing his studies as a researcher, he has been interested in using applied dance to create innovations to serve society and create experiences for more than 10 years.

Phatcharaphan Chaiyasung is a lecturer and researcher in Program in Community Nurse Practitioner at the Faculty of Nursing, Rajamangala University of Technology Thanyaburi, Thailand who graduated from community practice nursing and cognitive research and statistics. She has expertise and experience in adult and geriatric nursing and the community. She is interested in cross-disciplinary research using dance and music to integrate with nursing science to promote and develop the group of adults and the elderly and the community.

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Disclosure Statement

No potential conflict of interest was reported by the author.

Data Availability Statement

Data is not available due to confidentiality agreements with this study's participants.

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