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Analysis of Common Movements and Discomforts Among Rubber Farmers: Basis for Exercise Movements

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Abstract

The development of exercise movements based on the everyday movements of women rubber farmers and their bodily discomforts is examined in this qualitative study. It is specifically tailored to enhance the physical fitness and well-being of female farmers in the agricultural region of Naga, located in the province of Zamboanga Sibugay, Philippines. The muscles affected by the common movements of rubber tapping, which result in body pains and complaints, are investigated. It is found that the common movements of rubber farming are as follows: Unang Palagsik, Sanggot, Buhi-Sanggot, and Manawat. The results were collected and biomechanically analyzed with the help of a licensed physical therapist. It was concluded that the body parts mostly affected by rubber farming are the back, legs, neck, and arms. Exercise movements in the form of images and instructions were then formulated and assigned to each common movement, serving as the final output of this research study. The physical health and occupational well-being of women rubber farmers are expected to improve based on the study's findings, contributing to sustainable agricultural practices and community development initiatives.

Keywords: Rubber Farmer Exercise,Occupational Exercise,,Recreational Exercise

1. Introduction

In the contemporary workplace, the significance of comprehending the intricate relationship between physical fitness and body posture among working women is increasingly crucial (Salsali, Sheikhhoseini, & Sayyadi, 2023). As we delve into this study, it unravels the nuanced interplay between occupational demands, fitness levels, and postural dynamics to empower women in their pursuit of holistic well-being within the professional sphere. This exploration transcends conventional understanding, shedding light on

the often-overlooked connection between physical well-being and the postural strength of women in the workforce.

In the context of working women, Health-Related Quality of Life (HRQoL) is a crucial multidimensional concept encompassing physical, functional, emotional, and social well-being (Llewellyn et al., 2019; CDC, 2019). This is particularly relevant in apparently healthy adults, constituting a significant but understudied population requiring health services (Hand, 2016). Understanding the well-being of working women is essential given the sedentary and stressful nature of their daily work, contributing to the prevention of health issues and offering insights into potential economic, social, and public health implications (Guthold et al., 2018; Edwards & Sackett, 2016; WHO, 2019).

Physical activity (PA) plays a vital role in enhancing HRQoL, with leisure-time activities influencing fitness levels and various dimensions of quality of life (Buder et al., 2016; Biddle, 2016). However, the rising prevalence of physical inactivity, especially among women in Latin America and the Caribbean, 2 poses challenges to women's health and well-being (Guthold et al., 2018). Sedentary jobs in recent decades have led to reduced work-related PA, affecting daily activity levels, particularly in women (Guthold et al., 2018; Edwards & Sackett, 2016). Addressing these issues is crucial as insufficient physical activity is a significant risk factor for non-communicable diseases and can impact mental health (WHO, 2019).

Physical activity engagement has been proven globally as a potent vehicle to reduce health issues, starting from childhood, as advocated by the World Health Organization (WHO). It ensures healthy growth and development in young people and significant health benefits for hearts, bodies, and minds across various domains. Lack of physical activities contributes to the unfitness of working women, affecting both physical and mental well-being.

In the Philippines, where a significant proportion of the population is young, inadequate physical activity poses a notable public health concern, particularly among children and adolescents (James et al., 2023). Despite government efforts, there is a consistent failure to comply with global physical activity (PA) standards. Santos and Reyes (2022) emphasize the historical role of women in Philippine agriculture, engaging in tasks from planting to post-harvest activities. However, they face unequal access to resources, land ownership, and agricultural services compared to men, along with challenges like limited education, training opportunities, and restricted decision-making power. The physically demanding nature of agricultural work, combined with inadequate healthcare access, exposes women to higher risks of injuries and health 3 issues. In response, the Philippine government has implemented policies promoting gender equality and women's empowerment in agriculture.

Recognizing these disparities, the study by Rodriguez et al., (2021) supports the idea of exercise routines as a potential solution to the physical discomforts among women. The research demonstrates the efficacy of rubber farming exercise-based interventions in improving the well-being of working women, particularly those engaged in physically demanding agricultural tasks. Exercise routines, emphasizing cardiovascular exercise, flexibility, and coordination, offer a structured and enjoyable means to enhance physical health. The study highlights the positive effects of dancing on mental well-being, reducing stress and fostering social connectedness, which is crucial for women in agriculture facing various stressors. Overall, incorporating culturally relevant exercise routines into the lives of working women could be a promising strategy to promote holistic health and well-being, addressing the unique challenges they face (Rodriguez et al., 2021).

In Zamboanga Sibugay, recognized as the rubber capital of the Philippines due to its rubber farming-centric economy, the developed exercise receives augmented support by incorporating context-specific

data from interviews or surveys among working women in Naga, Zamboanga Sibugay. This primary data seeks to understand the daily routine of rubber farming, assess their everyday movement, analyze the said movements biomechanically, and develop exercises anchored to the common movement and discomforts of the rubber farmers. The imperative for conducting this research emanates from the potential of a weekly exercise activity to motivate working women to address issues related to their physical fitness and body posture, influenced by the demands of their jobs.

1.1 Statement of the Problem

The main objective of this study is to develop exercises based on the common movements and bodily discomforts of women rubber farmers. Specifically, the study aims to answer the following question:

1. What exercises are tailored to the common movements and bodily discomforts of the rubber farmers?

1.2 Objectives of the Study

This study aims to design routine exercises based on the movements among women goma farmers. Specifically, it aims to achieve the following:

1. Assess the common movement and discomfort of goma farmers.
2. Analyze the farmers' movements biomechanically.
3. Develop exercises tailored to the common movements and bodily discomforts in rubber farming.

1.3 Significance of the study

This study holds significant implications for various stakeholders, addressing the distinct needs of working women, their families, and the daily lives of the working women, community, barangay, municipality, health citizenry, and future researchers.

Working women. The study is directly relevant to working women's overall welfare and self-care. Through active engagement in physical exercise activities, these women have the potential to experience several benefits, including enhanced overall health, improved body posture, and perhaps heightened self-worth.

Families of the rubber women farmers. The family of rubber-working women can acquire significant knowledge and importance on improving physical fitness status and bolstering body posture, enabling them to provide assistance and promote positive household well-being behaviors.

Women's Organization. Developing exercises can instill positive habits, improve overall health, and enhance body posture among working women. As they engage in these exercises, the daily routines of working farmers are likely to be positively influenced, fostering a lifestyle characterized by increased physical activity and improved health. Thus, the exercise developed may be part of the wellness program for women in the community.

Community and Barangay. The community and barangay benefit from a healthier and more physically active younger population. The study's findings can inform local health initiatives, influencing community programs and services to promote physical fitness activities through exercises among working women. A healthier community contributes to improved overall well-being and potentially reduces healthcare burdens.

Women's Organization. Developing exercises tailored to the common movements and bodily discomforts of rubber farmers holds the potential to instill positive habits, improve overall health, and enhance body posture among working women. As they engage in these exercises, the daily routines of working farmers are likely to be positively influenced, fostering a lifestyle characterized by increased physical activity and improved health. Thus, the developed exercise routine may be part of the wellness program among women in the community.

Community and Barangay. The community and barangay benefit from a healthier and more physically active younger population. The study's findings can inform local health initiatives, influencing community programs and services aimed at promoting physical fitness activities through exercise among working women. A healthier community contributes to improved overall well-being and potentially reduces healthcare burdens.

Municipality. The results of this study provide substantial information that can significantly influence the health and education strategies of the municipality. Through a comprehensive understanding of primary kids' physical fitness and health profiles, local leaders and legislators can make well-informed decisions on allocating resources and developing programs. The findings that will be derived from this study have the potential to impact the development of comprehensive community-based programs designed to enhance physical fitness levels among school-age children. Moreover, this study possesses the capacity to influence policies about education, highlighting the significance of incorporating efficacious routine exercises within the broader educational structure. In essence, the research works as a beneficial instrument for municipal authorities, offering substantiation to bolster endeavors that promote the welfare and positive growth of the youngest constituents within the city

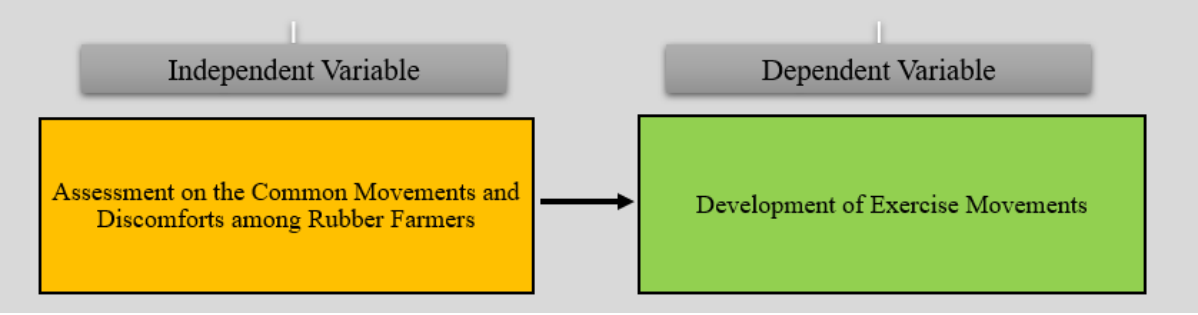
Health Citizenry. This research study makes a valuable contribution to the advancement of a health-conscious population by focusing on the promotion of physical fitness at the early stages of life. When working farmer women embrace routine practices and exercises, it can have a lasting effect on the population by decreasing health risks and enhancing overall quality of life.

Future Researchers. This study establishes a fundamental basis for future investigations into physical fitness treatments inside educational environments. Examining moderating variables and evaluating the success of specific programs can provide valuable insights that inform future research efforts, contributing to the ongoing enhancement of interventions designed to promote the health and well-being of primary school pupils.

1.4. Scope and Limitations of the Study This study aims to assess the movements of women goma farmers, their common discomfort during farming, and biomechanically analyze their movements as the basis for the development of work-based exercises in Naga, Zamboanga Sibugay. The participants will be working women who are “goma” farmers in the said locality. This study will be limited to implementing an occupational dance routine exercise among working women in Naga Zamboanga Sibugay as part of the academic requirement for this study for SY 2023-2024.

1.5. Conceptual Framework

Figure 1: Schema of the Study



The relationship between common movements and discomforts in rubber farming (IV) and biomechanical analysis alongside the development of exercise movements (DV) is explored in this study. The main goal of this study is to design an exercise program specifically aimed at mitigating these discomforts. A case study by Luz & Lemos (2012) is provided, highlighting the importance of ergonomic analysis in

understanding and addressing work-related discomfort, a key aspect of this study. This program is deeply rooted in biomechanical analysis and tailored to address the specific strains encountered in rubber farming.

2. Method and Material

A descriptive research approach was used in this qualitative study. A multifaceted approach to data collection was employed, including demographic surveys, direct observation of rubber farming tasks through videos and images, and the use of biomechanical analysis tools. The redesigning of the work system of rubber industries based on total ergonomics and ergo-micmac integration (2018) was showcased, illustrating how work systems redesigned based on ergonomic principles can improve worker well-being and productivity, aligning with the goals of this research. The collected data was meticulously analyzed with the help of a licensed physical therapist to ensure validity. The role of the licensed physical therapist was vital in developing targeted exercises that were not only effective in reducing bodily discomforts but also practical and easily integrated into the lives of rubber farmers, thereby enhancing their overall physical well-being.

2.1 Research Participants

The participants were composed of working women who are “goma” farmers in the Naga, Zamboanga Sibugay area. The needed sample was proportionally allocated among all working women in the said locality. A total of 6 participants were targeted: three (3) young adults whose ages range from eighteen (18) to thirty-nine (39) years old, and three (3) from middle adulthood whose ages range from forty (40) to fifty-nine (59) to ensure age range representation. To analyze the common movements biomechanically, a physical therapist was consulted to properly and correctly identify the muscles involved in the common movements and discomforts of rubber farming and to critique whether the developed work-based exercises correctly targeted the muscles involved.

2.2 Research Instrument

A researcher-made instructional design tailored to the needs of the women rubber farmers and a standardized assessment tool were used in this study to identify prevalent bodily discomforts. The whole process was first verified and checked by the adviser, after which the design was submitted to the physical therapist for comments, inputs, and suggestions. Throughout the interviewing phase, a diverse range of inquiry methods was deployed to gather information, encompassing structured, semi-structured, or open-ended approaches. These interactions occurred either individually or within collective settings. Moreover, a standardized assessment tool was used to record and assess the common movements and discomforts for validity purposes.

3. Results and Discussions

3.1 Objective 1 : Assess the Common Movements and DiscomfortS of “Goma” Farmers.

During the preparation stage, the groundwork for the examination was established, with an emphasis on recognizing the requirements and background of the intended respondents. The target population was identified as female rubber farmers in Naga, Zamboanga Sibugay, due to the increasing incidence of body aches and pains connected to the usual body movements of rubber farming. A detailed assessment of needs was conducted. The well-being of working women is considered essential given the sedentary and stressful nature of their daily work, which contributes to the prevention of health issues and offers insights into potential economic, social, and public health implications (Guthold et al., 2018; Edwards & Sackett, 2016; WHO, 2019).This study sought to understand work-related musculoskeletal disorders in women in the

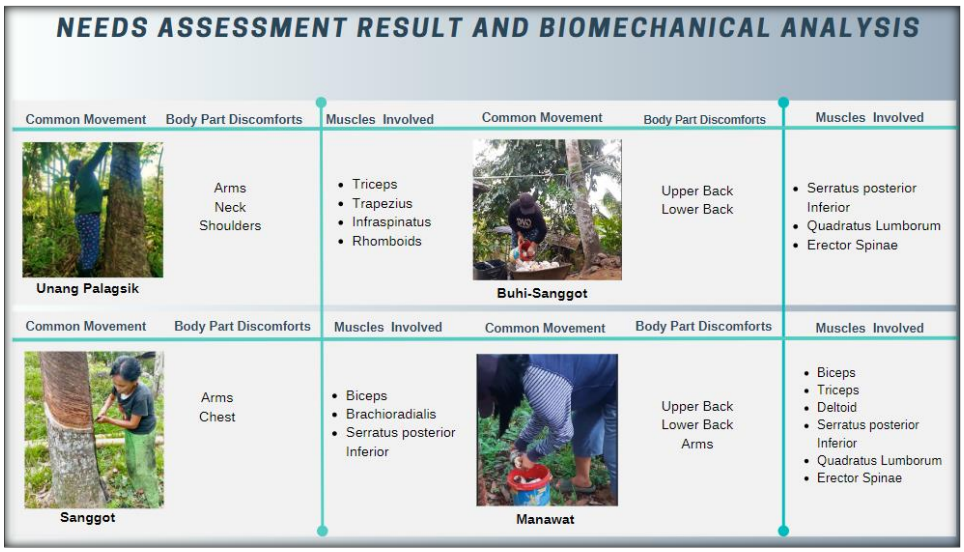
rubber industry. A standardized assessment tool and work behavior observations were involved in the research. The needs of older women who experience more discomfort in rubber farming are addressed by the intervention.

Figure 2:Needs Assessment Results

As shown in Figure 2, common body discomfort among the "goma" farmers includes the arms, neck, shoulders, chest, upper back, and lower back. These discomforts are based on their movements while harvesting the goma. It is implied that the majority of complaints among female goma farmers are related to their upper torso and extremities, particularly the upper back, lower back, shoulders, chest, neck, and arms. In contrast, no complaints related to the lower parts of the body, such as legs and toes, were reported in rubber farming.

3.2 Objective 2: Analyze the Farmers' Movements Biomechanically

Figure 3: Biomechanical Analysis Based on the Needs Assessment Results



It is shown in Figure 3 that the muscles involved in rubber tapping change depending on the part of the body that is being used. When the activity involves the arms, neck, and shoulders, the main muscles at work are the triceps, trapezius, infraspinatus, and rhomboids. However, when the chest, upper back, and lower back are engaged, the activity primarily uses the brachioradialis, serratus posterior inferior, deltoid,

quadratus lumborum, and erector spinae muscles. This implies that different muscle groups are activated based on the specific actions and which areas of the body are involved in the process of rubber tapping.

3.3 Objective 3: Develop Exercises Tailored to the Common Movements and Bodily Discomforts in Rubber Farming

Figure 4 : Figure 1 Exercise of "Unang Palagsik"

The first figure of the exercise, called "Unang Palagsik," is shown in Figure 4. This exercise focuses on enhancing muscular strength and flexibility, specifically targeting the deltoid and trapezius muscles. To begin, both feet are kept steady in the first position throughout the exercise, with no foot movements required for two counts. For the hand and body movements, both arms are extended forward, straight out in front, with palms facing the floor for two counts (A). Next, both arms are moved outward to the sides, kept straight with palms facing the floor for another two counts (B). Then, both arms are raised straight upwards with palms facing the audience and held in this position for four sets of two counts each (C), totaling 8 counts. Finally, the steps are reversed, moving back through the positions in the opposite order, completing a total of 32 counts. This sequence effectively works on the deltoid and trapezius muscles, improving both strength and flexibility.

Figure 5: Figure 2 Exercise of "Unang Palagsik"

Figure 5 displays Figure 2 of Unang Palagsik. It is nearly identical to Figure 1, differing only in tempo. This figure incorporates muscular strength, flexibility, and speed, with a focus on the deltoid and trapezius muscles. The footwork instructions include alternately stamping the right and left feet, with each stamp

counting for half a beat, totaling one count. For the hand and body movements, both arms are extended straight forward with palms facing the floor for one count (A). Then, both arms are moved outward to the sides with palms facing the floor for another count (B). Next, both arms are raised straight upwards with palms facing the audience for one count (C). This sequence is repeated eight times. Finally, the steps are reversed to complete the routine, totaling 32 counts. This exercise effectively targets muscular strength, flexibility, and speed while engaging the deltoid and trapezius muscles.

Figure 6: Figure 3 Exercise of "Unang Palagsik"

Figure 6 depicts Figure 3 in "Unang Palagsik", focusing on enhancing flexibility, particularly targeting the trapezius, occipitalis, and sternocleidomastoid muscles. The footwork instructions require both the right and left feet to remain steady in the first position, with no movements required. For the hand and body movements, the sequence begins by leaning the head to the right (A), then back (B), left (C), and finally front (D), repeating this sequence four times. Then, the movement is reversed, leaning the head to the left, back, right, and front, also for three repetitions. Each side takes two counts, totaling 32 counts. Flexibility in the targeted muscles is effectively improved by this routine, promoting overall range of motion and mobility.

Figure 7: Figure 4 Exercise of Unang Palagsik

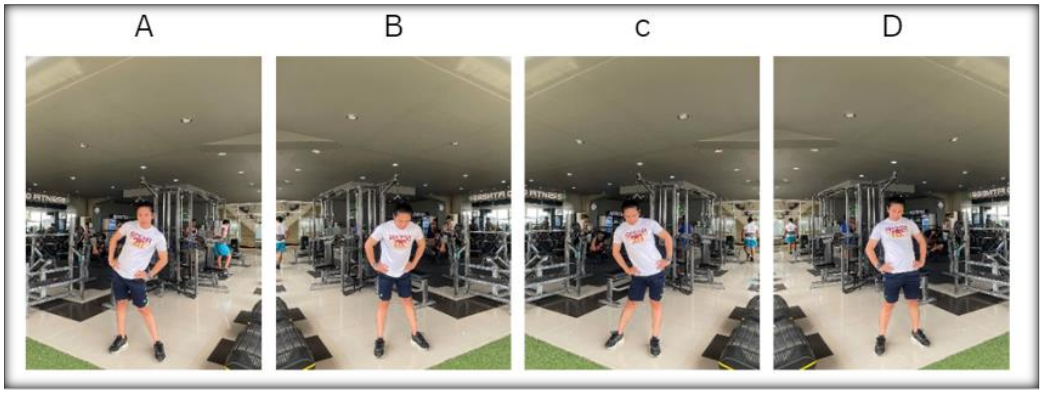


Figure 7 displays Figure 4 in "Unang Palagsik". In Figure 4 of "Unang Palagsik," the emphasis is on improving flexibility, particularly targeting the gluteus maximus, iliotibial tract, adductor longus, and rectus femoris muscles. The footwork instructions require the right and left feet to remain steady in the first position, with no movements necessary. For the hand and body movements, the sequence begins by leaning the hips to the right (A), then back (B), left (C), and finally front (D), repeating this sequence three times. Each side takes two counts, totaling 6 counts per repetition. Then, the movement is reversed, leaning

the hips to the left, back, right, and front, also for three repetitions. Each side takes two counts, with a total count of 32 to complete the routine. Flexibility in the targeted muscles is effectively enhanced by this exercise, promoting improved range of motion and mobility.

Figure 8: Exercise of "Sanggot"

Figure 8 consists of the "Sanggot" steps. "Sanggot" is a routine to improve muscular strength, particularly targeting the quadriceps femoris group and rectus abdominis muscles. The footwork instructions involve stepping the right foot to the right for two counts, with the body oriented obliquely (A). Then, raise the left leg diagonally in the same direction as the hands, ensuring the knee is bent at a 90° angle, with the calf almost touching the elbows, also for two counts (B). This sequence is repeated twice. The second step involves repeating the same movements in the opposite direction (C, D), totaling four repetitions. Hand and body movements include forming fists and pointing diagonally towards the right-upward direction, with arms slightly bent and elbows pointing diagonally opposite to the fists. The arms move in a harvesting motion, almost touching the knee calf, repeated four times. This is then mirrored in the opposite direction for four repetitions. Each set of movements is repeated twice, resulting in a total count of 32, effectively enhancing muscular strength in the targeted muscle groups.

Figure 9:Figure 1 Exercise of "Buhi-Sanggot"

Figure 9 displays "Bubi-Sanggot Steps". It is a comprehensive routine that targets both muscular strength and flexibility, with a focus on the quadriceps femoris group and rectus abdominis muscles. The footwork instructions begin by raising the left leg diagonally to the right with a bent knee, engaging the abdomen, for two counts (A). Then, the left leg is extended straight back diagonally while the right leg bears the body's weight slightly bent, for another two counts (B). This sequence is repeated three times. The third step involves stepping the left leg to the left, followed by the right leg, totaling four steps (C, D). Finally, the routine is reversed, repeating steps 1, 2, and 3 in the opposite direction (E, F). Hand and body

movements are intricately coordinated with the footwork. The first step involves bending the right elbow downward diagonally facing the knee while contracting the abdomen, while the left elbow raises at the back like a right angle with the hand pointing downward, lasting for two counts (A). The second step extends the left arm forward diagonally to the right, resembling a punch, while the right arm extends straight in the opposite direction with the chest protracted, for two counts (B). The third step requires no upper torso movements, with hands placed to both sides for four counts (C, D). Lastly, the routine is repeated in the opposite direction for a total of 16 counts (E, F). This comprehensive routine totals 32 counts, effectively enhancing both muscular strength and flexibility in the targeted muscle groups.

Figure 10: Figure 2 Exercise of "Buhi-Sanggot"

Figure 10 illustrates the Figure 2 steps of "Buhi Sanggot," which focus on enhancing flexibility and cardiorespiratory endurance, targeting the deltoid muscles, triceps, and flexor digitorum superficialis muscle. The footwork begins by stepping the right foot to the right while keeping the body facing forward (A), followed by the left foot (B), and repeating this sequence for a total of four counts (C, D). This is followed by jumping with both feet together four times (E), and then walking in place for eight counts (F). During the first step, the arms remain relaxed on both sides, with no actions for four counts. In the second step, both arms are raised upwards with relaxed palms, flipping the hands back and forth with slightly bent elbows synchronized with the jumps, for four counts, repeated four times. The routine concludes with both hands relaxed at the sides for eight counts. This integrated routine effectively combines footwork and arm movements to boost flexibility and cardiorespiratory endurance.

Figure 11:Figure 3 Exercise of Buhi-Sanggot

Figure 11 depicts Figure 3 of "Buhi Sanggot," which emphasizes flexibility, specifically targeting the pectoralis major muscles. The footwork involves stepping the right foot diagonally to the right, using it as the supporting leg while the left foot stays slightly pointed in place, for two counts (A). Then, the left foot's heel touches the ground to serve as the supporting leg while the right foot flexes, for another two

counts (B). These steps are then repeated on the opposite side (C, D), totaling 16 counts. For the hand and body movements, the sequence begins by opening the arms wide with palms in fist positions for two counts. Next, the arms are folded to the chest while lifting the elbows on both sides, with palms still in fist positions, for two counts. These movements are also repeated on the opposite side, and the entire sequence is repeated four times, totaling 16 counts. This routine effectively enhances flexibility by combining coordinated footwork with dynamic arm movements.

Figure 12: Figure 1 Exercise of "Manawat"

Figure 12 depicts Figure 1 of "Manawat," which focuses on enhancing flexibility and cardiorespiratory endurance, targeting the deltoid muscles, triceps, and flexor digitorum superficialis muscle. The footwork begins by stepping the right foot to the right while keeping the body facing forward (A), followed by the left foot (B), and repeating this sequence for a total of four counts (C, D). This is followed by jumping with both feet together four times, also for four counts (E). For the hand and body movements, during steps A, B, C, and D, the arms remain relaxed at both sides with no actions for four counts. In the second step (E), both arms are raised upwards with relaxed palms, flipping the hands back and forth with slightly bent elbows, synchronized with the jumps, for four counts. This sequence is repeated four times, totaling 32 counts. This routine effectively combines coordinated footwork with dynamic arm movements to enhance flexibility and cardiorespiratory endurance.

Figure 13:Figure 2 Exercise of "Manawat"

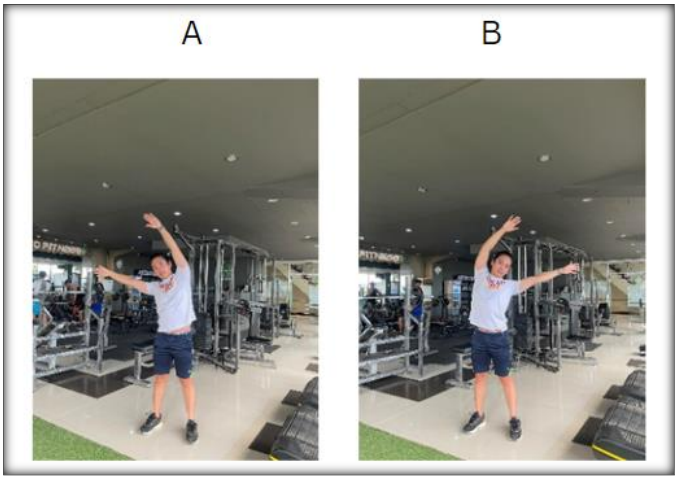


Figure 13 illustrates Figure 2 of Manawat, which emphasizes flexibility, targeting the deltoid muscles and triceps. The footwork involves keeping the legs in the first position for 16 counts, continuing until the music ends. For the hand and body movements, both hands are raised and swayed to the right, then to the

left, for 16 counts, continuing until the music ends. This routine combines stationary leg positions with dynamic arm movements to enhance flexibility in the targeted muscle groups.

Table 1: Version 1 FITT Guide of the Exercise Routine

Rationale:	It focuses on the exercise, which addresses the bad physical postures that rubber farmers have used due to their work nature.
Type of Exercise:	Low Impact Exercise It is the second type of exercise routine, which mostly involves stretching and flexibility in the upper body muscles.
Timetable:	Saturday, Sunday and Wednesday for all working rubber-farmer women.
Objectives:	1) To increase flexibility in the shoulders, chest, arms, and upper back, allowing for a greater range of motion in daily activities and exercises. 2) It helps alleviate tightness and tension in the upper body muscles, which can reduce post-workout soreness and stiffness. 3) To help counteract the effects of poor posture caused by sitting for long periods or engaging in activities that promote forward shoulder positioning.
Duration of the Exercise:	Warm-Up 5-10 minutes warm-up exercise with the intensity of 50-60% of the maximum heart rate. Main Exercise 15-20 minutes for the exercise proper with the intensity of 70-80% of the maximum heart rate. Cool Down 5-10 minutes cool down exercise with the intensity of 50-60% of the maximum heart rate.
Exercise Routine:	Warm-up Leg swings 1. Stand with one leg forward and the other leg lifted.Bend one leg slightly from the front to the back of the room.Repeat at least 10 times for each leg. Lunges 1. Stand upright so that the width between feet equals the width between shoulders. Keep the body lower and lower to make the stretch as deep as possible. 3. Place palms on the floor to stay balanced if needed. Heel raises.

	1. Stand upright with your feet facing forward. Stand on your toes, raise your heels off the ground, and then return to the first standing position. Hip swings. 1. Standing upright so that feet are shoulder-width apart. Then, swing hips clockwise and repeat at least 10 times counterclockwise. Neck turns 1. Stand upright with hands on your hips, then slowly look to the right, then left, and vice versa. Roll the neck clockwise and counterclockwise to stretch neck joints better. Shoulder rolls 1. Stand upright with your head facing forward. Lift your shoulders as high as possible, then lower them to the ground. Repeat this process 10 times or more to stretch your shoulders fully. Breathing exercises 1. Inhale slowly to allow as much oxygen to go deeply into the lungs as possible. Exhale to relax muscles and dilate blood vessels. Main Exercise Unang Palagsik : Figure 1: 4 repetitions Figure 2: 8 repetitions Figure 3: 3 repetitions Figure 4- 2 repetitions Sanggot : 4 repetitions Buhi-sanggot : Figure 1: 4 repetitions Figure 2: 4 repetitions Figure 3: 4 repetitions Manawat : Figure 1: 4 repetitions Figure 2: 8 repetitions Cool Down Leg swings 1. Stand with one leg forward and the other leg lifted. Bend one leg slightly from the front to the back of the room. Repeat at least 10 times for each leg. Neck turns

	1. Stand upright with hands on your hips, slowly look to the right, left, and vice versa. Roll the neck clockwise and counterclockwise to stretch neck joints better. Shoulder rolls 1. Stand upright with your head facing forward. Lift shoulders as high as possible, then lower them to the ground.Repeat this process 10 times or more to stretch your shoulders. Breathing exercises 1. Inhale slowly to allow as much oxygen to go deeply into the lungs as possible. Exhale to relax muscles and dilate blood vessels.
Benefits:	1. It helps promote flexibility and the body in general. 2. It helps control life's physical and emotional stresses. It helps lose weight, builds the body's muscles, and improves body posture. It increases blood circulation and lowers blood sugar and cholesterol. It improves intellectual capacity and increases one's productivity. 6. It provides significant protection from heart diseases. 7. It promotes better and more effective sleep.
Resource Person:	l John Bulawin
Person Responsible:	Women's Organization President

Table 1 presents the Frequency, Intensity, Time, and Type (FITT) details of the exercise, as depicted. This exercise regimen is categorized as low-impact and is recommended for execution three times per week. The table outlines warm-up and cool-down routines to be performed before and after the exercise routine, each lasting 5 minutes with consistent intensity levels. The main exercise routine, characterized by the highest intensity, incorporates 4 distinct dance sequences inspired by the common movements of rubber tapping, with each routine figure lasting to 3-5 minutes: "Unang Palagsik, Sanggot, Buhi Sanggot, Manawat". Recent literature, such as a study by Smith et al. (2019), underscores the significance of the FITT principle in optimizing dance training performance and reducing injury risks. This research affirms that adhering to FITT components—frequency, intensity, time, and type—effectively enhances physical fitness levels and safeguards against potential injuries when appropriately applied.

4. Conclusions and Recommendations

The Analysis of Common Movements and Discomforts among Rubber Farmers: Basis for Exercise Movements study has looked into creating an exceptional dance exercise program to address the physical stress of women farmworkers in rubber plantations. To this effect, it is crucial to distinctly determine the muscle part and the requirements of rubber farming through a needs assessment. This input is critical in creating dance movements that alleviate work stress and prevent work-related injuries. The study shows that recognizing the repeated actions of a latex extraction job in developing a dance exercise that mimics these movements is an imaginative and medicinal way of creating a dance exercise. Designing a dance fitness routine that may be refined to meet the special needs of rubber tappers, given the specific difficulties of their profession, was regarded as a promising intervention – a blend of indigenous farming practices with a fitness dance concept – for enhancing the health-related fitness and the quality of life of women rubber tappers. To sum up, creating a dance exercise tailored to the rubbers' needs with a complete mimicry of the actual rubber tapping is a creative dance routine that can alleviate the physical strain of rubber tree plantation work. It highlights the need for creative solutions for different sectors of work. To enhance the physical well-being of women in Goma's agricultural sector, local P.E. instructors or enthusiasts should organize comprehensive workshops that offer hands-on experience with new exercise routines, ensuring participants can integrate these activities into their routines and share their experiences. Incorporating local music and traditional physical activities, in collaboration with local musicians and physical education experts, will honor Goma's cultural heritage and foster commitment to the program. Partnerships with key organizations, such as the Women's Organization for Sustainability, will extend the program's reach, effectiveness, and sustainability beyond the initial implementation phase.

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