



## **Educational Exercise *William Flexion Exercise* To Reduce Lower Back Pain**

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**ABSTRACT :** LBP is a musculoskeletal and neuromuscular condition that affects the adult population. LBP can also be caused by poor body activity or due to activities in the wrong position, while the cause is an error in sitting position when carrying out daily activities statically and for a long time. Symptoms of NBP are pain, joints that feel stiff or difficult to move and a sense of tension. Pain and spasm can cause impaired functional activity and decreased productivity at work. Community service activities were carried out on October 20-19 by distributing leaflets about low back pain . This PKM aims to reduce lower back pain with *william flexion exercise* Good evaluation results through questions and answers and demonstrations of the *william flexion exercise*

**Keywords :** Low Back Pain, *William flexion exercise*

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## INTRODUCTION

Low back pain (LBP) is a health problem in almost all countries. <sup>1</sup> It is certain that almost 50-80% of people aged 20 years and over have experienced LBP. <sup>2</sup> LBP is a musculoskeletal and neuromuscular condition that affects the adult population. <sup>3</sup> LBP can also be caused by poor body activity or due to activities in the wrong position, while the cause is an error in sitting position when carrying out daily activities statically and for a long time. The National Safety Council reports that work-related illness with the highest frequency of occurrence is pain in the lower back, which is 22% of 1,700,000 cases. Nearly 80% of the population in industrialized countries have experienced low back pain. In the United States, the prevalence ranges from 15% - 20% per year, while the incidence based on new patient visits to the doctor is 14.3%. <sup>4</sup>

Batik craftsmen work statically within a period of 8 hours / day. Many workers lose their working hours every year due to musculoskeletal complaints, especially neck pain, this has an impact on reduced productivity, lost work time and considerable medical costs. <sup>6</sup>

Symptoms of NBP are pain, joints that feel stiff or difficult to move and a sense of tension. Pain and spasm can cause impaired functional activity and decreased productivity at work. Risk factors for low back pain include age, gender, body mass index, occupation, smoking, lifting heavy weights repeatedly, bending over, sitting for a long time, work attitude, psychological factors and years of service. <sup>5</sup> The impact of low back pain if not given proper treatment can cause pain, limited movement function and the inability to perform activities of daily living, and reduce productivity at work <sup>5</sup>.

Education *william flexion* exercise this with the aim of quantifying low back pain in the community. Method which used is gift leaflet *core stability exercise* on the mayang manurai community. then Public provide responses and discussion of the resultsexpected in the implementation of service Public this is so that Public couldTo do core stability exercise properly and independently.

## METHODOLOGY

Activity Devotion Publicheld on month october 2019 with target of IRT Mayang Mangurai Jambi City. Activity Devotion To Public This is done by giving a leaflet about *William flexion exercise* which consists of pelvic tilting, single knee to chest, and double knee to chest, with a dose of 8 repetitions, then demonstrated and corrected if the movement is not correct. Evaluation of this community service with a question and answer discussion related to *william flexion exercise* and low back pain . Activity devotion Public thisexpected could increaseknowledge of IRT and *william flexion exercise can be done* independently at home with the aim of reducing low back pain.

## Implementation Activity

Stage implementation activity devotion to Public this is as following :

### Preparation

This stage is the initial stage of implementation Devotion Public, previously team devotion Public conduct a survey by discussing with head of Rt 05 mayang mangurai, after that send letter in the form of permission in September 2022.

Stage next in preparation devotion Public this is material design and leaflet making regarding low back pain and *william flexion exercise* consisting of pelvic tilting, single knee to chest, and double knee to chest, with a dose of 8 repetitions , then gift explanation about the benefits and demonstration of how to *william flexion exercise* with motion correction if an error occurred in the movement .

### Implementation

At this stage, socialization begins and education related *william flexion exercise* at IRT Rt.05 Mayang Mangurai Jambi City by giving leaflets and demonstration movement *william flexion exercise* , with hope batik can do these exercises correctly and independently and correctly with the aim of reducing low back pain , then conducted ask answer.



Figure 2. Explanation of the material



Picture 3. *william flexion exercise* demonstration

### Monitoring and Evaluation

Monitoring and evaluation (monev) done directly to target. Scope monev in activity this cover monev planning and implementation and evaluation results. Evaluation (monev) done directly to target. Monitoring and evaluation is carried out with give discussion/question answer and results demonstration on IRT Rt. 05 Mayang Mangurai . Evaluation this aim to reduce low back pain.

## RESULTS AND DISCUSSION

Activity Devotion Public this lift theme "Education *william flexion exercise* to reduce low back pain " by giving leaflets and demonstrations on month october 2019 which the target is IRT Rt. 05 Mayang Mangurai . Devotion Public this conducted by 2 person person team lecturer from program studies D-III Physiotherapy and helped by 3 Students Program Studies D-III Physiotherapy STikes Baiturrahim Jambi.

*William flexion exercise* It stretches the shortened muscle by activating the Golgi tendon and muscle spindles resulting in relaxation and increase muscle

flexibility so that it works muscle become more balanced. William flexion exercise is type exercises with the concept of spinal flexion consisting of from seven set, aim for reduce painful and provide stability on lowertrunk with strengthening by active on abdominals, gluteus maximus, hamstring and stretching muscle flexor hip as well as muscle lower back. <sup>1</sup>

Principle WFE base is stretching of muscles in the dorsolumbar region and strengthening the abdominal muscles as well as could correct posture body which no appropriate. This exercise can improve stability lumbar because it actively trains the muscles abdominal, gluteal, and hamstring increase pressure abdominal which men- push the vertebral column back for help reduce hyperlordosis lumbar and reduce pressure on the disc intervertebral <sup>7</sup>

## CONCLUSION

After team doing activity devotion Public on batik workers across the city of Jambi with gifts leaflets and demonstrations william *flexion* exercise could done right by IRT Rt. 05 Mayang Mangurai and improve understanding and knowledge of *william flexion exercise* to the reduction of low back pain.

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