



# Video Film Intervention and Low Back Pain: A Protocol Study

## ARTICLE INFO

### Article Type Protocol study

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### How to cite this article

Delshad M H, Pourhaji F. Video Film Intervention and Low Back Pain: A Protocol Study . IQBQ. 2018; 3 (4) :98-101

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### Article History

Received: March 2019 ,27  
Accepted: May 2019 ,5  
ePublished: May, 2019 ,5

## ABSTRACT

**Aims:** Low Back Pain (LBP) is one of the most prevalent and costly health problems world wide.this protocol study aims to develop and evaluate an interactive video film intervention in order to reduce LBP.

**Instruments & Methods:** In this randomized controlled trial study 80 referees to health centers affiliated to Shahid Beheshti University of Medical Sciences (SHBUMS) will be selected according to inclusion/exclusion criteria and divided into two groups of intervention and control. The video film will be just shown for intervention group. Data will be collected through a self-designed questionnaire regarding Physical Activity (PA) behavior, Visual Analogue Scale (VAS) for measuring pain severity, Rowland Maurice's Questionnaire (RMQ) for assessing disability and Hospital Anxiety and Depression Inventory (HADS) for anxiety and depression measurement. Date will be measured at two times of pre and post intervention in both groups and analyzed through descriptive and statistical tests.

**Conclusions:** The study may provide a fairly less expensive, assessable, and powerful alternative intervention for individuals suffering from LBP and related disability.

**Keywords:** Video Film Intervention, Low Back Pain, Protocol Study

## Introduction

Low Back Pain (LBP) is one of the most prevalent health problems worldwide. It has been revealed that LBP could be leading to less bio psycho social health status of the suffered individuals<sup>[1-2]</sup>. Globally, it has been estimated that more than 84% of the general population reported LBP in some points of their life. Regular Physical Activity (PA) benefits improvement in universal health status and is associated with lower risk of all morbidities especially Musculoskeletal Diseases<sup>[2]</sup> (MSD). The studies revealed the relationships between PA and improving disability in LBP suffered individuals<sup>[2]</sup>. Furthermore, the previous studies revealed the relationships between Physical Activity(PA) and improving disability in LBP patients<sup>[3-4]</sup>. It has been discussed that individuals with lower PA have

significantly more negative beliefs regarding this behavior<sup>[5]</sup>. Cognitive Behavioral Therapy (CBT) is a kind of approaches to handle negative beliefs affecting - emotionally and functionally - on pain severity<sup>[6]</sup>. ositive thoughts can help the LBP patients to manage their negative beliefs and reduce their pain<sup>[7]</sup>. Descriptive norms, intention, and use of behavior change techniques play a key role to change the unhealthy behaviours. Thus, one of the major theories in this field is the Theory of Reasoned Action (TRA)<sup>[8]</sup>. This theory postulates that intention is a key predictor of behavior and that intentions are a function of attitudes, perceived behavioral control and perceived norms. These, in turn, are based on beliefs regarding expected outcomes, and norms<sup>[8]</sup>. Patients should understand the skills and perform them. This study

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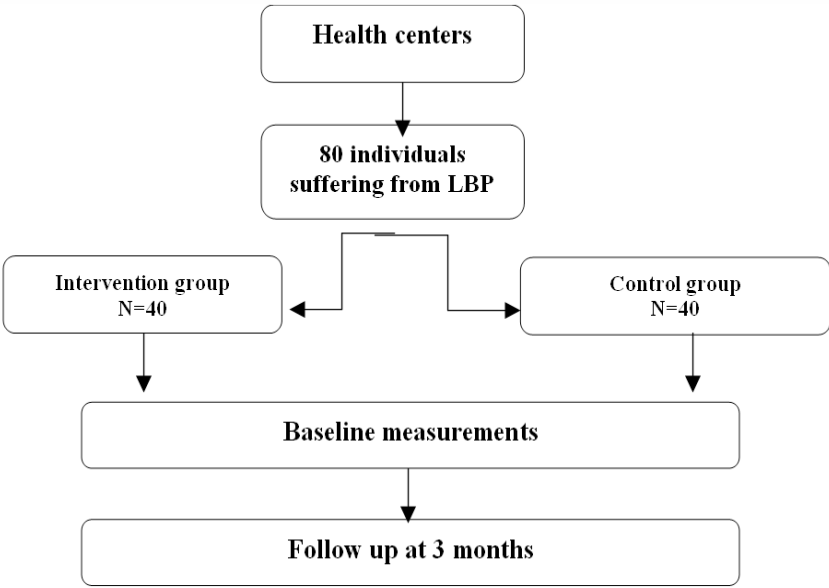
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aims to develop and evaluate an interactive video film intervention in order to reduce pain and disability among individuals suffering from LBP.

**Instruments and Methods**

This study will be done on a sample of individuals suffering from LBP and referred to health centers affiliated to (SHBUMS). In this study the individuals will enter into the study if they suffer from LBP for at least 12 weeks and be satisfied to be studied. However

if someone suffer from any sever disability or psychological disorders or any abnormalities in his/her spine will be excluded from the study. The intervention group will receive video film intervention in which the health education specialist will try to remove negative thoughts/ beliefs regarding PA and substitute these beliefs with positive/ healthy normative beliefs. Furthermore, he will discuss with the participants about the benefits of PA behavior



**Figure 1:** Flow diagram of the study sampling

**Table 1:** The study overview

Phases	Aim	Methods	Participants
1 <sup>st</sup> session	Step 1: Improving negative beliefs of participants regarding physical activity ( 45 minutes)	By video film intervention	Participation who suffering from low back pain and be referred to health centers
2end session	Step 2: Showing preventive behaviors such as proper postures and exercise for improvement of Low Back Pain ( 45 minutes)	By video film intervention	Participation who suffering from low back pain and be referred to health centers

for LBP improvement. In this film, the proper exercises for strengthening the muscles of the abdomen, thighs, and back will be shown by the key person. Moreover, to make positive normative beliefs for the participants, some LBP patients will discuss about the benefits of PA for reducing LBP and improving disability. The video film will be designed for two 45-minute sessions about normative beliefs discussion in the first session and showing proper back postures as well as strengthening/stretching exercises in 2nd session. Control group will not receive the film but just the routine service. However, after completion of the study, the control group will be provided by the film. The primary outcome will be PA behavior improvement that be assessed by a self reported questionnaire. Pain severity, pain, related disability and anxiety/ depression will be measured through visual analogue scale (VAS), Rowland Maurice's physical disability Questionnaire (RMQ) and Hospital Anxiety and Depression Inventory (HADS). The VAS has been widely used in the measurement of pain severity<sup>[9]</sup>. The validity and reliability of this scale have been repeatedly confirmed<sup>[10-11]</sup>. The validity and reliability of Persian version of RMQ has been confirmed in previous study<sup>[12-13]</sup>. The Iranian version of HADS have been verified in existed evidence<sup>[14-15]</sup>. In this randomized controlled trial study 80 referees to health centers affiliated to Shahid Beheshti University of Medical Sciences (SHBUMS) will be selected according to inclusion/exclusion criteria and divided into two groups of intervention and control. Data will be entered to SPSS and analysed by comparing the mean and standard deviation of different measures between two groups. All participants will ask for permission and completing the informed consent form prior to the study commence. The ethics committee of Reasech Center of SHBUMS approved the study.

## Conclusion

The study may provide a fairly less expensive, assessable, and powerful alternative intervention for individuals suffering from LBP and related disability.

## Acknowledgements

The authors appreciate the research deputy of health faculty of SHBUMS for approving this study.

## Conflict of Interests

There is no conflict of interests.

## Financial Disclosure

None declared.

## Funding/Support

The research center of health faculty affiliated to SHBUMS approved this study.

## Authors ' contribution

MHD will perform the study and will collect the data for analysis. He will also analyse the data. M H D and F.P will supervise implementation of whole study.

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