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Original Research Article

PREVALENCE OF RISK FACTORS ASSOCIATED WITH NON-SPECIFIC BACK PAIN AMONG FEMALE PATIENTS IN AFIRM

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ABSTRACT

Introduction: Back pain is a common musculoskeletal disorder of world, the most frequent back pain is known as non –specific back pain. Majority of back pain does not require medical care and resolve itself within days and weeks but some recurrent and severe non- specific back pain need management and cure. The selection of intervention depends upon the cause of back pain. The study identified the association of physical and psychosocial factors and investigated the most frequent causative factor of non – specific back pain in female patients of AFIRM.

Materials and Methods: The cross sectional study was conducted in AFIRM. The Keele Start Back pain screening tool was used to collect data from female patients with non-specific back pain, who came in physiotherapy department of AFIRM .The tool provided the brief demographic data of subjects and described the disability and belief about their back pain. The tool is also divided the patients in to sub groups according to the level of risk.

Our study identified that there is a high prevalence of psychosocial factor than physical factor in female patients with non-specific back pain of AFIRM and the large number of patients are at high risk than moderate and low risk.

Conclusion: The research will help to clinician, to select appropriate and accurate for cure and management of back pain it will also help to prevent back pain.

There is a need to conduct study in both genders and in other centers of region. The sample size should be large and study time should be long. There is also need to further identify particular physical and psychosocial factor like anxiety, depression etc

KEY WORDS: Back pain, physical factors and psychosocial factors.

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INTRODUCTION

Back pain is a major health problem of the world [1-3) about 90% adults experience back pain at some point in their lives [4], 85% never given precise pathoanatomical diagnosis [2, 3, 5-8]. The incidence age is 18 – 55 years. Each year millions of people develop back pain but few people consult their clinician [3]. The selection of intervention for management of low back pain depends on cause of pain [9] and it can be conservative or surgical treatment and pharmacological. Conservative treatment includes education, rest, medication, braces, spinal manipulation, exercise, stretching and postural training. Surgical treatment is given when non surgical treatment fails. This includes spinal fusion and disc replacement. Medications commonly used include NSAIDs and muscle relaxants [5, 10].

The most common type of back pain is non-

specific back pain, the tension, soreness/ stiffness in the lower back region wit out running in legs for which it is not possible to identify a specific spinal cause. This type of back pain resolve itself within days and weeks but persistent and recurrence back pain leads to disability and affects the quality of life [7, 9], it produces great impact on economy and social relationships [1, 3, 7, 11].

There are two main causative factors of non-specific back pain, physical factor and psychosocial factor. Physical factor can be occupational/household activity, obesity, life style, demographic variations and other co morbid diseases. psychosocial factor usually missed although, it is a strong prognostic indicator of back pain [12], psychosocial factor can be depression, anxiety , any psychological trauma and other stresses [7, 12]. The prevalence and intensity of back pain is associated with individual**,** physical psychosocial and occupational factors [4]. Back pain reasons in females are depression, lack of physical activity, poor posture in ADLs and abdominal obesity.

Many studies have done in developed countries but little or no work has been done in developing countries [13]. No study has been done in our region to evaluate the ratio between physical and psychosocial risk factors associated with non-specific back pain in females. Different physical and psychosocial circumstances affect health of personnel and produce disability. It is essential to investigate the reason of non-specific back pain; this study helps clinician to prioritize treatment for the entire spectrum of patients with nonspecific low back pain and take appropriate decision for particular patient according to pronounced causative factor. The aim of the study is to establish etiology of low back pain in female patients of AFIRM and identify the rate of both risk factors, physical or psychosocial, with non- specific back pain. This study helps to determine which risk factor is the most common among female patients with non-specific back pain and also find out the rate of occurrence of psychosocial risk factor in females. This study also helps to find the severity of complexity. This study can lead to better planning, management and implementation of preventive measures against non-specific back pain.

MATERIALS AND METHODS

Study Design: Cross-sectional study was carried out at the AFIRM

Instrument: Cross-sectional study using Keele Start back pain screening tool

Study Population, Source of subjects: The sample for the study comprised of female patients with non specific back pain who reported at physiotherapy department of AFIRM

Sample Selection and Size: Sample derived from purposive sampling method and data was collected from 90 patients with back pain

Study duration: 3 months: March 2016 to May 2016

Inclusion Criteria: 3 months or more of chronic low back pain or 6 months or more of intermittent low back pain, Female patients with back pain, Age above 18 years

Exclusion Criteria: under the age of 18 years, Have specific low back pain (e.g. history of back pain related to cancer, fracture, or infection), Not willing to participate in study.

Measuring Instruments:

The questionnaire

Keele Start back pain screening tool: This tool is a supporting tool in the Low Back Pain Toolkit for Primary Care Providers [14].

The questionnaire was organized in two parts; Part 1 consist of demographic information, Part 2 consist of nine questions, first four questions describe pain and disability while remain five questions identify as psychosocial sub scale. Patient score 0-3 is categorized as low risk, score 0-3 from last five question shows patient at medium risk and score 4 or more from last five items, classified patient at high risk [2, 7, 12] . The kSBT guides clinician to design particular treatment plan according to the complexity [6]. The kSBT demonstrates good validity and reliability. it is a brief and easy tool for patient [3].

Ethics Statement: A written consent was received from patients. Permission was taken from the administration of AFIRM

Statistical analysis: Data analysis was done by

using SPSS, version 20 Data were analyzed by means of descriptive statistics and percent calculations. In order to test for ratio between risk factors

Objectives of the Study: To establish the relationship between physical factors and the presence of non-specific back pain, To establish the relationship between psychosocial factors and the presence of non-specific back pain. To establish the ratio between physical factors and the psychosocial factors with non-specific back pain**.**

The Keele STarT Back Screening Tool

Patient Name: ---------- -Age: -------- Provider Name: Date: -------
Thinking about the last 2 week sticks your response to the following questions:

1. My back pain has spread down my leg(s)at some time in the last 2 weeks (agree / disagree)
2. I have had pain in the shoulder or neck at some time in the last 2 weeks (agree / disagree)
3. I have only walked short distances because of my back pain In the last 2 weeks, agree / disagree)
4. I have dressed more slowly than usual because of back pain (agree / disagree
5. It's not really safe for a person with a condition like mine to be physically active (agree / disagree)
6. Worrying thoughts have been going through my mind a lot of the time (agree / disagree)
7. I feel that my back pain is terrible and it's never going to get any better (agree / disagree)
8. In general I have not enjoyed all the things I used to enjoy (agree / disagree)
9. Overall, how bothersome has your back pain been in the last 2 weeks?

Not at all	Slightly	Moderately	Very much	Extremely
0	0	0	1	1

Total score (all 9): _____Sub score (Q5-9): _____

Consent form

I _____ hereby agree to participate in the study as described to me in the information sheet. By signing this form I agree to filling in the questionnaire seeking information on factors that may be linked to the presence of low back pain. I understand that there are no monetary rewards for my participation and that I am not obliged to take part and can withdraw from the study at any given time.

Signature _____

Witness _____

Date _____

RESULTS

Statistical analysis included 90 questionnaires which were completed fully and correctly. Table 1 presents the structure of age of the subjects who completed the questionnaire correctly. The mean age of the sample

Table 1: Mean age of study sample.

Mean±SD of Age
46.40±13.27

Description of the study sample (*n* = 90)

Table 2: Occupation description of study sample.

Occupation	Frequency
Working lady	12
House wife	78

Table 3: Frequency of risk factors.

Risk factor	Rate of Prevalence
Physical factor	34.44
Psychosocial factor	54.44

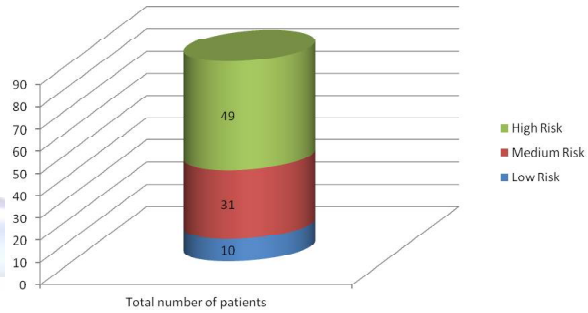
Table 4: Difference in risk factors.

Risk factor	Mean±SD of score
Physical factor	2.9667 ±0.10050
Psychological factor	3.4333 ± 0.13689

Table 5: Level of complexity.

Risk factors	Number of participants
Low risk	10
Moderate risk	31
High risk	49

Fig. 1: Graphical representation of distribution of risk factors in sample according to results.



DISCUSSION

Back pain is a social and economic health problem that affects population of all ages globally (1, 15). It is a common problem among the other musculoskeletal disorder. It affects physical and social wellness and compromise the quality of life [7]. This study will help to identify the reason of back pain and assist the practitioner to choose suitable therapy. So, back pain will manage appropriately and will minimize the chance of recurrence.

Sample size of ninety female patients responded to the survey and their demographic data is as reported in Table 1. The mean age ± (standard deviation) of the participants was 46.40±13.27 years. Among the participants, 13% were working ladies and 87% were house wives in

table 2. The results associated risk factors are as shown in Table 3,4 and 5. A total of 37% participants showed physical factor as causative factor while 60% showed psychosocial factor as causative factor for non-specific back pain [16]. This study categorized the complexity level of patients 10% at low risk, 31% at moderate risk and 49% at high risk.

In the literature review, The list of recognized causes of low back pain is vast in numerous studies [17], like age, gender smoking tobacco diet, obesity, work load, sedentary lifestyle and the level of physical fitness, muscle elasticity, joints mobility range, muscle strength, and co morbidity to the best of my knowledge, very little work has done to identify the rate of psychosocial factors in comparison of physical factor [3, 7, 13]. The results are not directly comparable with previous studies, because similar and corresponding studies have not been found in literature. They focused mostly on lower back pain and used different population, time periods; do not only rate the occurrence of physical and psychosocial factors [4, 7]. In our study, the prevalence of psychosocial factor in female patients is quite high that is 60%, According to a number of studies, females are greatly at risk for LBP associated with psychological factors. It remains unclear if an unhealthy lifestyle and/or depression causes or aggravates back pain or back pain influences depression. Stress or anxiety may be common underlying factors for obesity and back pain [7]. It is has been proven that physical factors influence the presence of LBP, but there is increasing evidence and growing consensus that psychosocial factors also play a role in the precipitation or worsening of LBP [7, 18]. In this study there is significant association of LBP and psychological stress.

The aim of our cross sectional study is to investigate the association of risk factors with non specific back pain in female patients of AFIRM. The majority of patients were at medium risk than low risk. The study investigated the marked were of middle aged. Our study established relationship of physical and psychosocial factors with non-specific back pain in females. This study showed the strongest association of psychological factors than physical factors in females with non –specific back pain. This study also revealed that the large numbers of participants were at high risk than medium and low risk while participants difference between in the prevalence of physical and psychosocial factors. According to study, the psychosocial factor is mainly causing back pain in female patients and this factor is also responsible for increasing complexity and disability.

This study is significant to identify the potential risk factor, and classify the patients in sub groups, according to complexity, our study will help practitioner and contribute to a more suitable and accurate selection of measure. It will help to prevent unnecessary therapies, reduce disability and avoid the frequent recurrence. Ultimately, the burden on economy will reduce.

CONCLUSION

The study investigated that the frequency of psychosocial is higher than physical factor in females with non-specific back pain. Study will help to select appropriate treatment and it will reduce the risk of complexity and chronicity.

ABBREVIATIONS

kSBT- Keele Start back pain screening tool

Limitations: This study was conducted only in one centre, it only involved female patients, the sample size was also small and study time was also limited .the tool was used for gathering data was not further elaborated and explained the factors.

Recommendations: There is also need to identify particular psychosocial factor like anxiety, depression etc

The clinician need to include the provision of education and appropriate referral to physiotherapist and psychologist who are at high and medium risk. The stress management techniques and CBT should include in management and prevention of back pain.

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Conflicts of interest: None

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