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PHYSICAL THERAPISTS ATTITUDES AND DIAGNOSTIC APPROACH ON ASSESSING CHRONIC LOW BACK PAIN PATIENTS: A MULTICENTER CROSS-SECTIONAL STUDY IN KARACHI.

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ABSTRACT

BACKGROUND: Globally, the chronic low back pain is a highly prevalent condition that affects about 80% of the population at some point in their life. **OBJECTIVE:** To explore the Physical therapists current attitudes and diagnostic approach on assessing chronic low back pain patients. METHODS: The study was a Cross-sectional survey conducted in Karachi from November 2019 to February 2020. The sampling technique used was non probability, purposive sampling technique, and the sample size was determined using OPEN EPI Version 3.0 software, which estimated a sample size of 126 based on a margin of error of 5% and a confidence level of 95%. Participants were recruited from Dow institute of physical medicine and rehabilitation, Dow University and hospital ojha campus, Jinnah postgraduate medical center and Dr. Ziauddin hospital. Data collection was carried out through a self-Structured questionnaire. **RESULTS**: Overall 126 physical therapists were included in this study. Their mean age was 26.91 ± 5.5 years. The Majority (61.9%) were females with a male to female ratio of 1:1.6.The Greater numbers of the subjects (55.6%) were having only one year of experience whereas 22.2% in each group has two and three years of experience. The large number of PTs (82.6%) believes that physical therapy assessment should include the screening of red flags; similarly, 81.7% of PTs were of the opinion that diagnosing a condition is part of the physical therapy practice. 79.4% of PTs allow their patients to talk freely without interruption about their problem. However, 76.9% and 74.3% focus on the physician's diagnosis and their referral card. **CONCLUSION**: **T**he study explored physical therapists' attitudes and diagnostic practices in assessing chronic low back pain patients. While many acknowledged the importance of biopsychosocial factors, mechanical aspects still received significant attention. The study suggests the need for more holistic assessment skills, reduced reliance on lab investigations, and interdisciplinary collaboration.

KEY WORDS: Attitude and Diagnosis, Chronic Low Back Pain, Physical Therapist.

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INTRODUCTION:

Globally, the chronic low back pain is a highly prevalent condition that affects about 80% of the population at some point in their life.[1] The point prevalence of CLBP is reported to be 12 -33%and one -year prevalence of 22-65%in the adult population.[2] The Global prevalence of low back pain (LBP) in 54 countries were estimated including Pakistan, in which the point prevalence was 11.9 ± 2.0%, and the 1-month prevalence was 23.2 ± 2.9% .The CLBP is considered as a major Public health problem most common among female individuals and with aged between 40–80 years.[3] The CLBP is defined as a pain that lasts over 3 months with complex pathogenesis and multifactorial etiology. There are Numerous factors Including age, obesity, psychosocial and occupational factors that lead to the development of CLBP.[4,5, 6] Amongst this the most common is the increasing Age with large number of studies finding the highest prevalence in the third decade of life. It is evident that the prevalence rate will keep increasing with age with more severe forms of low back pain (LBP).[7] Other factors such as psychosocial issues ,stress, anxiety, depression, and certain types of pain behavior are also responsible to have CLBP ,these conditions rumble the risk that a patients episode of LBP pain will last long enough to be considered chronic.[8]There is a strong evidence that physiological distress such as depression plays an important role at early stages, and the health care providers should focus on these factors.[9]

The Physical therapists (PTs) are the Rehabilitation Specialist, who assess and treat patients with CLBP.[10,11]The European National clinical guideline recommends that the red flags must be screened and considered during the routine assessment of patients with LBP, providing the clear guidance from a range of sources including the Chartered Society of Physiotherapy.[12,13]The PTs should take

detailed history taking including red flags screening, performing comprehensive physical examination and considering the psychological aspect of the disease In.[14]It has been suggested that the attitudes of the healthcare providers regarding diagnosis and assessment impact the patient's outcome ,there was consistent evidence that health care providers did not adhere to clinical guidelines when performing a spinal assessment.[15,16]The physical therapy evolves from a profession that treats through prescription by a physician, there are many evidences that PT relay's on the physician's diagnosis and focus on their referral card the Diagnosis is a complex process that involves clinical decision-making and consideration of the various dimensions of the patients following CLBP in order to give accurate treatment.[17]

It is found that the health care providers including PTs have a high level of fear that the Physical activity will cause injury and thus will exacerbate the pain, so they advise patients to stop doing exercises and rely more on sick leaves ,this attitude will in turn influence the patients outcome.[18] In terms of assessment , PTs define red flags as per guidelines however there was little consensus on how PTs asked patients about red flags.[19] Physical therapy Practice varies among different settings ; some PTs focus more on biomedical model, rather than on bio- psychosocial model, focusing on patient's pathology only, not the psychosocial aspect of the disease. It has been suggested that any intervention targeting on a single factor will not meet the needs of the most patients, the intervention should include patients all health determinants. [20, 21] since the introduction of the bio psychosocial disease model by Engel, there was an extensive shift in the use of this model for the diagnosis and management of musculoskeletal disorders. In the past, the biomedical model predominantly focused on anatomical structures related to the back region as the origin of pain and as justification for medical interventions.[22]

To the author's knowledge, there is no study in Pakistan investigating the attitudes and diagnostic practices of PTs in assessing the CLBP patients. Present studies have centered on the attitudes and diagnostic practices of general practitioners or a combination of healthcare providers, there is less evidence about the influence of Pts. The understanding of these attitudes and diagnostic practices enables more effective implementation of existing guidelines and effective education of PTs about CLBP.

The Chronic low back pain is a common musculoskeletal problem; every third patient is seeking services for the assessment and management of the CLBP. The aim of this study was to investigate the Physical therapist's current attitudes and diagnostic Practices on assessing chronic low back pain patients. Physical therapists are the Rehabilitation Specialists who can help patients to improve or restore mobility and are Experts in pain management .[10]

MATERIALS AND METHODS:

The study was a Cross-sectional survey conducted in Karachi from November 2019 to February 2020. The sampling technique used was non probability, purposive sampling technique, and the sample size was determined using OPEN EPI Version 3.0 software, which estimated a sample size of 126 based on a margin of error of 5% and a confidence level of 95%. Participants were recruited from Dow institute of physical medicine and rehabilitation, Dow University and hospital ojha campus, Jinnah postgraduate medical center and Dr. Ziauddin hospital. Inclusion criteria for participants were aged between 19 to 30 both male and female physical therapists,

working in MSK Physiotherapy OPD, Physical therapists who have managed patients with low back pain. Undergraduate physical therapists, Non-clinical physical therapists, other than Musculoskeletal OPD were excluded. Data collection was carried out through a self-Structured questionnaire. Their attitudes and practices were assessed using a self-designed structured questionnaire comprising of 29 statements. A questionnaire piloting was done on 5 subjects who were not included in the presented study. The Questionnaire was divided into the three sub sections: Physical therapists attitudes on chronic low back pain assessment, patients' attitudes towards assessment and the diagnostic issues with the assessment, consisting of 14, 7 and 8 statements, respectively. Each response of the questionnaire was based on a 5 point Likert scale, Strongly Agree", "Agree", "Neither Agree or Disagree", "Disagree", "Strongly Disagree"), Physical Therapists were requested to choose their appropriate answers according to the statements. The Questionnaire was distributed among their respective working departments to assess their attitudes and practices on assessing the patients with chronic low back pain. Prior enrolling subjects written informed consent were taken from each study participants. SPSS versions 20 were used in the data entry and analysis. The frequency and percentages were taken out for all three categories. Ethical approval for the study was obtained from the institutional review board, and informed consent was obtained from all participants or their legal guardians. Confidentiality and anonymity were ensured throughout the study.

RESULTS:

The physical therapists profile was examined in terms of age, gender, and years of experience. The mean age of the physical therapists was found to be 26.91 years with a standard deviation of 5.50 years. In terms of gender, 61.9% were female and 38.1% were male. With regards to years of experience, 55.6% had 1 year of experience, while 22.2% had 2 and 3 years of experience respectively. TABLE 1

Most physical therapists prioritize patient symptoms and use assessment forms to guide their examination, but some differ in their approach. Some evaluate patients before and after every treatment, while others only evaluate after every treatment procedure. Some PTs focus on detailed medical history and physician diagnosis, while others overlook the patient's psychosocial status during assessment.TABLE 2

The table shows patients' attitudes towards assessment in physical therapy. Over half of the patients believe their psychosocial condition can be understood after a few initial treatment sessions, and most expect PTs to follow the referral card. Many patients are not specific about the site of their pain, and majorities believe their occupation affects the number of days off for LBP. More than half have a passive attitude towards PT, and most have limited knowledge. Rural and urban LBP patients have different attitudes towards assessment. TABLE 3

The table displays varying perspectives and practices related to diagnosis among physical therapists. While a majority agree that diagnosis is a part of physiotherapy, opinions are divided on the extent of this role. Many do not conduct formal assessments, and there is disagreement on the necessity of X-rays and the overuse of medical investigations. Additionally, there is debate on the emphasis placed on laboratory investigations versus clinical investigations. The table suggests a need for greater clarity and consensus on the diagnostic

responsibilities of physical therapists. TABLE 4.

PHYSICAL THERAPISTS PROFILE	Mean	Standard deviation
Age (Years)	26.91	5.50
GENDER	N	%
Male	48	38.1
Female	78	61.9
YEARS OF EXPERIENCE		
1	70	55.6
2	28	22.2
3	28	22.2

Table 2. Percentage distribution of PTs' attitudes towards assessment:

PTs' attitudes towards assessment	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I take a small history the first time in order to proceed the treatment	21(16.7%)	60(47.6%)	10(7.9%)	23(18.3%)	12(9.5%)
I take a very detailed history	12(9.5%)	12(9.5%)	7(5.6%)	60(47.6%)	35(27.8%)
During the assessment, I don't take into account the patient's psychosocial status	16(12.7%)	62(49.2%)	18(14.3%)	28(22.2%)	2(1.6%)
I let the patient talk (without interferences)	4(3.2%)	8(6.3%)	14(11.1%)	80(63.5%)	20(15.9%)
I use notes/assessment forms	8(6.3%)	12(9.5%)	16(12.7%)	67(53.2%)	23(18.3%)
Patient's symptom guides the History taking and clinical evaluation	8(6.3%)	12(9.5%)	10(7.9%)	83(65.9%)	13(10.3%)
I prefer physician's exclusion of red flags	6(4.8%)	35(27.8%)	26(20.6%)	57(45.2%)	2(1.6%)
Physical therapy assessment include the non-musculoskeletal examination (screening of red flags and clinical tests)	1(0.8%)	14(11.1%)	7(5.6%)	86(68.3%)	18(14.3%)

I focus on the physician's medical diagnosis	4(3.2%)	12(9.5%)	13(10.3%)	89(70.6%)	8(6.3%)
I focus on the physician's referral card	5(4.0%)	21(16.7%)	19(15.1%)	78(61.9%)	3(2.4%)
I modify my examination according to the patient's severity of illness	4(3.2%)	24(19.0%)	8(6.3%)	75(59.5%)	15(11.9%)
I evaluate each patient before and following every treatment	4(3.2%)	47(37.3%)	9(7.1%)	57(45.2%)	9(7.1%)
I evaluate each patient following every treatment procedure	1(0.8%)	67(53.2%)	18(14.3%)	37(29.4%)	3(2.4%)
I evaluate each patient after 4-5 treatment sessions only	3(2.4%)	52(41.3%)	27(21.4%)	36(28.6%)	8(6.3%)

Table 3. Percentage distribution of Patients' attitudes towards assessment:

Patients' attitudes towards assessment	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
You begin understanding patient's psychosocial condition, after few initial treatment sessions only	7(5.6%)	15(11.9%)	26(20.6%)	67(53.2%)	11(8.7%)
Majority of patients have the attitude that the PT pursue exactly what is composed of the referral card	1(0.8%)	39(31.0%)	26(20.6%)	55(43.7%)	5(4.0%)
Majority of patients are not specific about their site of pain	1(0.8%)	12(9.5%)	23(18.3%)	80(63.5%)	10(7.9%)
The nature of occupation patient involves in, matters intern of the number of days off taken from work for the onset of LBP.	1(0.8%)	9(7.1%)	14(11.1%)	95(75.4%)	7(5.6%)
Majority of the patients have a very	2(1.6%)	27(21.4%)	22(17.5%)	64(50.8%)	11(8.7%)

passive attitude					
There is lack of knowledge among patients regarding Physical therapy	6(4.8%)	14(11.1%)	14(11.1%)	75(59.5%)	17(13.5%)
There a difference in concordance between rural and urban LBP patients	5(4.0%)	14(11.1%)	16(12.7%)	80(63.5%)	11(8.7%)

Table 4. Percentage distribution of Diagnostic issues:

Diagnostic issues	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Diagnosis is a not a part of physiotherapy at all	26(20.6%)	46(36.5%)	18(14.3%)	23(18.3%)	13(10.3%)
Diagnosing a condition is a part of physiotherapy practice	7(5.6%)	1(0.8%)	15(11.9%)	75(59.5%)	28(22.2%)
Formal assessment is not performed by a large number of Physical therapists	3(2.4%)	19(15.1%)	26(20.6%)	74(58.7%)	4(3.2%)
More emphasis should be given in assessment at an undergraduate level	0	13(10.3%)	22(17.5%)	76(60.3%)	15(11.9%)
Performing X-ray is obligatory	3(2.4%)	31(24.6%)	25(19.8%)	57(45.2%)	10(7.9%)
physiotherapists are "executers"	13(10.3%)	37(29.4%)	19(15.1%)	54(42.9%)	3(2.4%)
There is an overuse of medical investigations	5(4.0%)	23(18.3%)	20(15.9%)	66(52.4%)	12(9.5%)
There is an emphasis on laboratory investigations over clinical investigations	5(4.0%)	12(9.5%)	23(18.3%)	77(61.1%)	9(7.1%)

DISCUSSION

This study investigated the PTs contemporary attitude and diagnostic Practices in assessing CLBP patients. The current study showed that most of the PTs believed that physical therapy assessment not only includes the assessment of the musculoskeletal system, but also the screening of red flags and clinical tests. The vast number of PTs quantity of them allow their patients to talk freely, without interruptions just to gain the impression about their psychosocial status,

indicating that large number of them are practicing as per current clinical practice guidelines, which recommends the evaluation of biopsychosocial factors in the assessment as it's far an important determinant of patient's outcome.[23] Despite, of the evidence that internationally many PTs believe that their role is mainly to address the mechanical aspects of CLBP. [25]Two statements from the assessment part highlighted that the diagnostic practices of most of the PTs is to relay on Physicians medical diagnosis and referral card. This attitude reflects the lack of autonomous practice.[26] The PTs are considered as technicians rather than a professional healthcare provider and majority of the Physicians believe that the PTs lack the most complex criteria of medical professionalism including evaluation skills and clinical decision-making. It is worth noting the most of the PTs believe that in most of the cases the Patient's symptom guides the History taking and clinical evaluation.[27]Interestingly, majority of the PTs history taking methods were according to the current guidelines. [28] Most of them are using soap note or note book to record the patient's history. The Greater number of PTs has the attitude that the nature of occupation patient involves in, matters in term of the number of days off taken from work for the onset of LBP. Healthcare providers are often influenced by patient demands in their management of LBP.[29] This could be due to mostly permanent contracting employees, in which sick leave can more easily be requested. However, this is conjecture.The large proportion of the PTs takes time to acknowledge the patient's psychological status; this could result in the delay in recovery of patients. Almost all participants agreed with the statement that diagnosis is part of the physical therapy practice, despite the current result that showed majority of the PTs relays on physician's medical diagnosis and referral card .Majority have felt that more focus should be given on the assessment skills at the undergraduate level rather than giving tutelage on treatment techniques only. The large number of PTs were of the view that more emphasis is given to the laboratory investigations over clinical assessment, similarly many of them agreed with the statement that generally clinicians relay more on lab investigations rather on their clinical assessment to stabilized the diagnosis, which is a Global problem and efforts should be taken to control the causes.[30]

Many of the PTs have agreed that most of the PTs are not performing the patient's assessment before initiation of the treatment .PTs evaluation is an ongoing process that begins at the first contact with the patient, including when the PTs starts gathering information. Assessment is a necessary process because it determines the diagnosis and prognosis of the condition however, without performing assessment t is impossible to treat the patient with CLBP. [30]

CONCLUSION:

This study investigated physical therapists' attitudes and diagnostic practices in assessing chronic low back pain patients. The majority of physical therapists believed in assessing biopsychosocial factors, but many still focused on the mechanical aspects of CLBP. They relied on physicians' medical diagnosis and referral cards, and patients' knowledge of physical therapy was found to be lacking. The study highlights the need for more emphasis on assessment skills and a shift away from over-reliance on lab investigations. Overall, physical therapists need to adopt a more holistic approach to assessing and managing CLBP patients.

ETHICS APPROVAL: The ERC gave ethical review approval.

CONSENT TO PARTICIPATE: written and verbal consent was taken from subjects and next of kin.

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