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RESEARCH PAPER

Relationship between Coping Mechanisms and Kinesiophobia Among Patients with Chronic Sciatica: A Closer Focus on The Mode of Treatment

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ABSTRACT

The objective of the current study is to explore coping mechanisms and pain dread experienced by individuals with sciatica. Sciatica, characterized by severe pain along the sciatic nerve, is a common symptom. People who suffer from chronic pain often have psychological problems. The restrictions and mobility problems that follow the pain reduce functioning, leading to further distress for the individual to cope with. The sample for this study (N=213) was taken from the clinics and rehabilitation centres of the Hazara division. Three scales of assessment: Visual Analog Scale (VAS-UV), Tampa Scale of Kinesiophobia (TSK-UV), and Pain Cope Inventory (PCI-UV) were used. In the context of therapeutic methods, individuals with sciatica have different coping strategies and a dread of pain. In addition, coping and fear of pain are all affected by gender and mode of treatment. The findings highlight the importance of comprehensive research and intervention for sciatica pain.

Keywords: Sciatica, Pain Coping, Kinesiophobia, Treatment Mode

Introduction

In today's world, pain in the sciatica is one of the primary reasons for disability. People affected by this disability affect not only themselves but others as well. Moreover, it also affects how they cope and how others develop Kinesiophobia. The factors affected by sciatica pain and becoming a reason for disability in today's world will be explored in this research work, and how multiple factors interact with sciatica pain.

Compression of the sciatica nerve leads to neurogenic sciatica, which is exacerbated through direct compression of the nerve. On the other hand, the referral of pain refers to the leg relative to the joint. There are various variables associated with the pain of sciatica, which influence one's life and are quite significant. An individual ends up in more pain as a result of the limitations associated with the movement due to the impairment of functioning. Sciatica pain is currently dealt with in various forms, including pharmacologic and physiotherapeutic techniques (Feki et al., 2024).

The largest nerve in the body, the sciatic nerve, runs from the lower back all the way down to the feet. The muscles in the leg, thigh, and feet are all influenced by the sciatic nerve. This nerve begins in the ventral part of the spinal cord at L4. The nerve has fibers, courtesy of the anterior and posterior parts of the lumbosacral plexus. The nerve emerges from the vertebrate, making one single nerve, called the sciatic nerve (Akhaddar, 2024).

Patients with sciatica described feelings of agonizing discomfort in their bottom area. The sciatic nerve, a larger nerve, experiences pressure, which causes this discomfort. Sciatica nerve pain causes, symptoms, and effects are listed under clinical significance for

nerves. Research states that most patients with sciatica feel their sciatic nerve pain has its roots in the spine. The "sensation of L5 nerve roots" arises due to the rupture of a disc present in one's spine. There are also non-spinal explanations for sciatic nerve pain, explained by researchers but not as recurrent as spinal-related explanations (Giuffre et al., 2023).

Additionally, because sciatic nerve pain is a chronic condition, a patient may suffer from mental problems such as depression, sleeping disorders, loneliness, mood changes, mental instability, mental discomfort, or low self-esteem. Due to the fact that the sciatic nerve causes chronic pain, a patient may develop a tendency to seek attention when they cannot hang out with other people, including their friends or relatives. They may believe that they will always have pain, and they will always be alone (Sellami et al., 2025).

Depression and pain in sciatica are connected as well. The chronic patient of sciatica experiences depression as well as pain. The patients who have to face acute episodes of depression and anxiety feel more pain than others. Since pain in the sciatica nerve is extremely severe and unbearable, the majority of people feel depression along with some other psychological disorders as well (Anttila et al., 2024).

Sciatica affects both working men and women. As a result of the severity of pain that these people experience, those who suffer from sciatica nerve pain encounter mental discomfort. These individuals are unable to perform their day-to-day activities while maintaining their working position because of the pain that they are experiencing (Jareebi et al., 2025).

Kinesiophobia

As stated by Tesio (2025) Patient Kinesiophobia is caused by the patient's sciatica pain, which persists for a rather long period and is not eliminated by complete treatment. Once the patient is no longer in pain, he or she fears recurrence of such episodes of pain.

Models presenting long-term pain. Models that display chronic agony. There are biological models and biopsychosocial models of pain that explain the management of pain or physical sickness associated with sciatica nerve pain (Nicholas, 2022).

The biomedical model. In this paradigm, the reactions of pain to the body and brain are different. Pain in the pathology of the brain is considered to be a symptom of a physical ailment. There are two ways to treat pain according to this paradigm: the first is to locate the site of pain that has not been identified yet from the pathology, and secondly, eliminate the pain at that part of the body by an appropriate remedy. In case there is no physical harm, then psychological pathology would be the cause(Johnson, 2025).

The biopsychosocial model. The sickness concept model was based on the biopsychosocial model. This concept comprises social, psychological, and biological aspects. Emotions, coping styles, behavior patterns, and convictions are forms of psychological aspects. Socioeconomic status and social assistance networks when sick comprise the social aspects. In addition to those, predisposing elements, initiation elements, and sustaining or exacerbating elements are other elements of the concept of causation. Predisposing elements relate to elements that are inherent qualities for patients; they derive from the life circumstances of the patient.

The elements brought about by an accident or infection are referred to as initiation factors. The psychological manifestations include sleep disturbance and pain; they are the sustaining elements (Bevers et al., 2016; Nicholas, 2022). If together they comprise a comprehensive assessment, several issues are brought to Foreman's attention, namely whether a patient is considered to be in good health or not, whether his or her illness is

severe or not, whether a patient displays certain behaviors or not, or to what degree a patient's illness impacts his or her functioning. Even as they are to some degree different from each other, they are also similar to a degree.

As a result of the patient's functional incapacity and intensity of pain, there is no correlation between biological causes and sciatica pain. Biopsychosocial factors are different between patients with and without physical disabilities. Compared to those with no physical disabilities, patients without any physical disability experience more intense pain. This results from a feeling of pain for the first time (Anttila et al., 2024).

Fear-avoidance model. Fear and Avoidance Paradigm: This illustrates the levels at which fear affects pain or discomfort during movement. Simply put, fear avoidance is the avoidance of fear in unpleasant circumstances. Pan et al. (2025)argued that fear avoidance in circumstances that are unpleasant is due to distinct beliefs and ideas in specific circumstances in the patient's experience of the unpleasantness to the point that there was no correlation between the level of pain at that point in time (Turk & Wilson, 2010). The experience of pain consists of a bidirectional relation between the emotional and cognitive states that are further related to thinking and mood, as argued by Leeuw et al. (2007). According to this model, every time the patients experienced pain, their belief systems were created in a way that made them tend to view the pain as dangerous and dangerous. In addition, it was observed that patients suffering from more severe forms of pain would tend to claim that they have very unfavorable views concerning the pain. This would ultimately cause incapacity, catastrophic reappraisal, and Activity Avoidance (Turk & Wilson, 2010).

Loeser's Model of Pain. Modes, otherwise known as Loeser's model of pain, were proposed by Loeser (2000). Using this model, Loeser explained the sensory, emotional, and cognitive aspects of pain. This model was proposed with a view to controlling pain. According to this model, nociception is a physiological phenomenon and has a sense of a potentially dangerous response of the sensory nerve system (Loeser, 2000).

Loeser's pain model suggests (a)Nociception. The peripheral pain receptors are activated by mechanical stimulation. (b)Painful. The suffering in itself is never nice. The emotional response stimulates the higher nerve center accordingly. (c)Pain behavior**.** Behavior is the shown content, and it is visible to all through communication. He argues that it is subjective since it is influenced by the nervous system. However, there has been an inability of some individuals to comprehend the subjective aspect of the suffering. Pain has an element of subjectiveness, which has a causal effect. This is because nociception is very painful and dangerous; therefore, it does have a causal effect. The sensory dimension of the phenomenon of feeling will always be influenced after nociception occurs, which subsequently influences cognition. It can also influence an individual's behavior (Loeser, 2000).

Psychophysiological Reactivity of Pain

A physical reaction must be expressed regarding the psychological distress, emotionally stable conditions, or stressful events. The adaptive and functional responses are covered in the psychophysical reactivity of pain. Flight and fright are the adaptive and functional reactions to anxiety and terror. The psychophysical conditions rely entirely on the patient's hands: how strong and weak they may be psychologically during the excruciating sciatica conditions, and how they react to the pain. Two ways to reduce the discomfort include exercise and an optimistic attitude (Li & Jackson, 2022).

Coping Mechanism

The research revealed that one of the problems that sciatica patients have to deal with is the control and treatment of their pain. This disease can be treated in different ways,

such as through medicinal and physical exercises. Patients suffering from sciatica experience depression, mental problems, and problems concerning their self-esteem. Controlling the disease on the mental side will be the major exercise that a patient will undergo (Jareebi et al., 2025).To control their pain, the patient ought to accept the situation more and worry less. The major problem will be to handle any sort of pain because a sciatica pain patient will also be dealing with problems in their psychology. To accomplish this, one ought to understand their sensations and learn to accept their situation. Heat, coldness, burning, and slight to extreme pain will be some examples of sensations (Esposto et al., 2025).

"Coping" refers to the behavioral, cognitive, and emotional problems of a person concerning their physiological circumstances, as well as the difficulties they experience. An individual might have to cope not only with the challenges faced outside, but also with the difficulties encountered within(Reddington et al., 2022).

Coping strategies are used to direct one's thoughts, feelings, and behaviors concerning conditions. Avoidance strategy, passive coping, and active coping are the three sub-strategies that form the cognitive strategies. In the event of being in a state of denial, an avoidance coping strategy is adopted to evade coping with the situation. When an individual denies stressors, they evade feelings, perceptions, and behaviors associated with stressors. In the case of passive coping, one responds to stressors in an indirect manner. In active coping, one faces the situation or the stressors directly (Khuzaee et al., 2024).

Types of coping. There are different types of coping styles of coping, which include problem-focused styles of coping, emotional styles of coping, appraisal styles of coping, and occupational styles of coping. In the case of person-oriented styles of coping, the person is focused on the problem and handles the distressing situation. In the emotional styles of coping, the main concern is about the circumstances where there is no problem with the emotional expression.

Active and Passive coping. Positive and negative coping strategies are also possible. In addition to this, positive coping entails a shift in a person's point of view in relation to a certain stressful situation with a view to coping with that situation. The issue can be solved instantly to learn a way out of a solution (Reddington et al., 2021). Passive coping strategies make it even harder for a person to solve a stressful situation. In this case, a person who applies passive coping strategies finds it difficult to solve a situation(Reddington et al., 2022).

Coping with sciatica pain. Coping strategies can be extremely helpful when attempting to overcome any physical or mental illness. If an individual were attempting to change their way of thinking, it would only have a positive effect. Coping can play an important role in a high level of quality of life concerning physical, psychological, and social factors, among others (Esposto et al., 2025).

Literature Review

Sciatica nerve pain. Pan et al. (2025)argue that worry about future pain affects people with sciatica pain when it comes to how they cope with it. Gender and age influence this issue, as mentioned earlier. Therefore, another issue that is affected by this physical ailment is a matter that has a long-term influence on different aspects of life, and among those aspects being tackled in this paper are mentioned below (Feki et al., 2024)

The drug given to the patients with sciatica nerve pain had psychological effects but did not have physiological consequences. Such a drug was used for patients suffering from severe sciatica nerve pain. This came to be known as primary care. After undergoing such surgery, within three months, 60% of the patients had healed, while in a year, 70% of the

patients had healed. In the placebo group, 50% of the patients healed in ten days. Within four weeks, seventy-five percent of the patients reported less pain (SARNO, n.d.).

According to Baloh (2019) Sciatica pain is basically a form of mental anguish, which in most cases is caused by a medical condition. This, in turn, makes them upset. There are some techniques for dealing with sciatica pain. Physical therapy, surgery, and other forms of medical interventions are additional medical treatments for sciatica pain. Having utilized different mental approaches and therapies, they are capable of managing their chronic pain. There are instructions offered by the American Psychological Association on the manner in which persons are supposed to handle their agony (Esposto et al., 2025).

People with both acute and sciatica pain experience behavioral, physical, emotional, and psychological problems (Li & Jackson, 2022).Physicians treat people experiencing physical pain, while psychologists help people with emotional, physical, and behavioral problems so that they can handle their pain when living their normal lives. Painful sensations experienced through the sciatic nerves influence a person's physical as well as mental health, which encompasses headaches, anxiety, depression, peripheral neuropathy, and arthritis pain (Jensen & Turk, 2014).

The sciatic nerve is the largest in the human body. The severe pain caused as a result of bending and twisting of the lumbar spine is known as sciatica. Discomfort in the lumbar spine is also felt by patients who are suffering from sciatica. Pain develops unilaterally. Many patients with sciatica mention that they continuously feel buttock discomfort and burning. Furthermore, they remain with a feeling that their leg is heavier than it was in the past. In short, sciatica nerve pain is clinically diagnosed by history and examination (Akhaddar, 2024).

Kinesiophobia

Patients with sciatica experience Kinesiophobia. Patients experience intense negative feelings as a result of their own Kinesiophobia. Patients receive negative reinforcement as a result of fearing more pain in the future. Cognitive, psychological, environmental, social, and neurophysiological factors contribute simultaneously to maintain pain. These factors are employed to sustain a high level of Kinesiophobia among patients with sciatica (Turk & Wilson, 2010).

Pain is different for each individual. While some patients can cope with their pain, some cannot. Coping strategies and the Kinesiophobia are different for each patient depending on the outcome of their treatments. For patients with sciatic pain, headaches, or lower back problems, or for patients suffering from any kind of disease, pain management is universally proven, and their treatment is universally focused. Besides being physically ill because of their illness or pain, patients can be under stress, depressed, or face psychological distress, inhibition to adapt, avoidance, and fear of their pain and injury, among other problems. Mental problems can be triggered by physical problems (Loeser, 2000).

In another study, the authors identified that even after pain has been treated, the Kinesiophobia is a contributor to chronic pain. Even after the injured tissue has recovered, these patients are still afraid of pain that might occur in the future. This is due to the patient's traumatic past experiences with their pain. The patient will learn how to avoid suffering in this circumstance. There are two aspects to the Kinesiophobia related to the self: the primary component and the secondary variable. Some of the primary components are the initial fear of the pain, and secondary variables include the social and emotional components that develop over time(Pan et al., 2025).

The research further revealed that fear is a person's reaction to frightening occasions through emotions and behavior. This is very distressing since the harmful stimuli always have some history. Patients with a history of painful diseases will always exhibit changes in their moods and behavior. The interpretations of the patients would always be dire due to the bad histories they have encountered in the past. The patients would always exhibit negativity and distress, not due to the pain, but due to the fear of the pain (Dekkers, 2025).

Research was focused on determining how sciatica nerve patients with disc herniation perceived their recovery themselves and whether that had any relation to pain-related fear and pain disability. Patients did not heal completely, and the Kinesiophobia increased. Researchers found that whereas patients who did not recover continued to have the same dread of sciatica pain as before, those patients who recovered from sciatica nerve pain did not worry about experiencing another episode(Ong et al., 2011).

One study involving the subject revealed the great influence that Kinesiophobia has in the situation of panic disorder. The study uses the model of Kinesiophobia in order to describe the amount of suffering. Along with the conditioned stimulus, the model goes further to describe the experience associated with the functioning of the body. The model further illustrates the reactions that one experiences when they have sciatica pain(Rhudy & Meagher, 2000).

Apparently, Kinesiophobia is one of the essential elements that a patient experiences in an unpleasant situation. Thus, maladaptive behaviors in the patient are a consequence of his or her negative response to pain. As Bonanno et al. (2024) argue, individuals with sciatica pain demonstrate both pain-related learning/processing as well as remembering. In addition to this, it changes emotion/and experience effects, which in turn affect the pathophysiological conditions of individuals(Ong et al., 2011). Another research conducted by the authors Wright and McNeil (2021)focused on the link between the Kinesiophobia and sickness. The fear of illness increases as the progression of the physical illness.

Coping with Sciatica Pain

Tutoglu et al. (2015)presented ways of coping with sciatica pain, which might entail accepting the pain. A patient can live a better life if he or she can control the pain he or she experiences. Moreover, the patient can avoid the pain. When a patient can accept the pain, he or she can also handle the worst experiences with sciatica-related pain. There is tangible proof of the effectiveness of the strategy because it can boost a patient’s mental and physical well-being (Khuzaee et al., 2024).

Sciatic pain is the most troublesome issue for the patient. Additionally, the authors explained the process of the learning procedure, which is associated with operant conditioning, in order to facilitate the patient in dealing with the unpleasant situation. The patients experience frustration as they are unable to perform their regular activities. Sciatic pain is a multifaceted illness that comprises both physical and emotional problems. The patient experiences low self-esteem and sadness because of the sciatic pain (Jensen & Turk, 2014). Coping and pain avoidance are considered to be influenced by emotional and behavioral processes and affect the patient's health (Bąk et al., 2018).

Hypotheses

1. Patients presenting with sciatic pain may correlate positively with active coping behaviors and negatively with both passive coping behaviors and dread of pain.

2. On the coping strategies scale, the people suffering from sciatica pain and depending only on medication and physiotherapy will differ significantly.

3. In patients encountering sciatica pain and being dependent either on medication or physiotherapy, may differ dramatically in terms of their pain scale.

4. If patients with sciatic pain rely on active coping mechanisms, then they will fear pain more than patients who use passive coping mechanisms with their sciatic pain.

5. In comparison to female patients, the male patients will have greater coping skills and greater dread of pain

Material and Methods

Research Design

In this research, a purposeful sampling method has been used. Correlational research design forms the basis of this research. The current study used the purposive sampling method. The OPDs and rehabilitation centers in Islamabad, Haripur, and Abbottabad offered a sample size of 213. The table below indicates the sample breakdown.

Table 1
Demographic Characteristics related to Sample (N=213)

Demographics	f	%
Gender		
Male	98	46.0
Female	115	53.9
Mode of Therapy		
Pharmacotherapy	110	51.6
Physiotherapy	103	48.35
Severity of Pain		
Less severe	95	40.60
More severe	118	55.39

Inclusion Criteria

Patients with Sciatica pain seeking medical advice in OPDs and the Rehabilitation Centers in Islamabad, Haripur, and Abbottabad were the participants meeting the criteria of the present research work. These individuals were aged between 25 and 58 years.

Exclusion Criteria

Patients accessing the rehabilitation centers in the District Abbottabad, but without sciatica pain, were excluded from the current study. Such subjects are not within the stipulated age bracket of 25 to 58 years.

Instruments

Demographic sheet. A demographic sheet was used to get the basic information from the individuals about their age, gender, and severity of pain.

Tampa Scale Kinesiophobia (TSK-UV). The 17-item scale was designed to measure Kinesiophobia in a person undergoing any type of illness (Miller et al., 1991). The reliability coefficient of the scale is 0.90(Hudes, 2011).The questionnaires have scores ranging from 17 to 68. The Kinesiophobia level is measured according to the scores, where a high score shows higher Kinesiophobia. The scale consists of answers starting from 0, indicating agreement, to 4, indicating strong disapproval. Activity avoidance and somatic preoccupation are the two subcategories under the aforementioned scale. Activity

avoidance refers to the idea that a person believes a course of action may lead to injury or discomfort, whereas somatic preoccupation refers to the idea that a person believes a serious medical condition may exist.

Pain Cope Inventory (PCI-UV). The PCI assesses various cognitive and behavioral methods of coping with pain; it is a 33-item scale with six subscales i.e., pain transformation, distraction, reducing demands, retreating, worrying, and resting). Response categories range from 1to 4 (1 = infrequently/never, 2 = occasionally, 3 = frequently, 4 = quite frequently) (Kraaimaat & Evers, 2003).Active coping mechanisms include diversion, exercise, and goal planning, among others, which are characterized by direct involvement with the pain experience or related limitations. Passive coping strategies include avoidance, relying on others for assistance, or psychological disengagement, such as resting, praying, or catastrophizing. Active Coping comprises changing suffering (items no.15, 16, 18, and 30), distraction (items no. 9, 19, 20, 21, and 22), and reducing demands (items no. 2, 3, and 4). Whereas Passive coping includes withdrawing (items no. 10, 11, 12, 13, 14, 32, and 33), concerned (items no. 17, 23, 24, 25, 26, 27, 28, 29, and 31), resting (items no. 1, 5, 6, 7, and 8).

Visual Analogue Scale (VAS-UV). The context of an individual's pain is measured by this scale. It is a one-dimensional scale used to gauge the level of a person's pain. It is used on the adult population. The distance (mm) on a 10-cm scale between 0 (no pain) and 10 (severe pain) is the method of calculating the scores. The scale has a score range of 0 to 100. The scale's reliability is 0.73(Gould & Crichton, 2001).

Procedure

The permission to start data collection was given by the heads of the rehabilitation centers in the cities of Islamabad, Haripur, and Abbottabad. The participants were approached to explain the purpose of the study. Informed consent was taken from each participant with the guarantee that their responses would be kept confidential before the administration of the questionnaire. They were also instructed as regards their reaction towards each scale. The subjects attempted to answer all the questions under the researcher's supervision.

Ethical Considerations

The ethical aspects in this current study include the aspect where everything in this whole research process was conducted ethically. The consent of the authors was necessary in order to be able to make use of the tools. Persons who gave their approval to take part in this research study were subjected to data collection. The involved participants were provided with a complete explanation about this study's goals and objectives. The participants in this research study were able to stop the research study whenever they felt they wanted to. Their whole questioning was properly attended to.

Results and Discussion

Table 2
Pearson's Product-Moment Correlations for Tampa Scale for Kinesiophobia, Brief Cope Inventory, and their subscale (N=213)

	Variable	1	2	3	4	5
1	TSK	-	.62**	.51**	-.39**	-.55**
2	ACAV	-	-	.41**	.24**	.32**
3	SOMFO	-	-	-	.61**	.24**
4	Act COP	-	-	-	-	.71**
5	Pas COP	-	-	-	-	-

Note. TSK= Tampa Scale for Kinesiophobia, ACAC= Activity Avoidance, SOMOFO =Somatic Focus, Act COP = Active Coping, Pas COP= Passive Coping. *$p < 0.05$.

The findings showed a strong positive correlation between Kinesiophobia and activity avoidance, r(211) = .62, p < .05. Kinesiophobia was also positively correlated with somatic focus, r(211) = .51, p < .05. However, a strong negative correlation was found between Kinesiophobia and active and passive coping, r(211) = −.39, p <.05 and r(211) = −.55, p <.05, respectively). Activity avoidance was negatively correlated with active and passive coping, r(211) = −.32, p <.05, and slightly positively correlated with somatic focus, r(211) = .41, p <.05.

Table 3
Mean, Standard Deviation, and t-values of Physiotherapy Sciatic Pain Individuals and Pharmacotherapy on Coping Strategies Subscales (N=213)

	Physio (n=103)		Pharma (n=110)			95% CI			*Cohen's d*
Variables	*M*	*SD*	*M*	*SD*	*t(211)*	*P*	*LL*	*UL*	
Act COP	18.01	4.87	15.91	4.40	3.29	.00	-0.49	1.28	046
Pas COP	17.25	5.51	19.34	4.73	2.96	.00	-1.47	0.47	0.41

Note. Physio= Physiotherapy, Pharma= Pharmacotherapy, Act COP = Active Coping, PAS COP= Passive Coping *p >.05

A comparison of the coping strategies of patients with static pain who were undergoing physiotherapy and those who were on medication was conducted using an independent samples t-test. For active coping, patients in the medication group (M = 15.91, SD = 4.40) scored lower than those in the physiotherapy group (M = 18.01, SD = 4.87). With a moderate effect size (Cohen's d = 0.46), this difference was statistically significant (t(211) = 3.29, p <.001, 95% CI [0.49, 1.28]). The pharmacotherapy group (M = 19.34, SD = 4.73) scored higher than the physiotherapy group (M = 17.25, SD = 5.51) on passive coping. Moreover, this difference had a small to moderate effect size (Cohen's d = 0.41) and was statistically significant (t(211) = 2.96, p <.01, 95% CI [0.47, 1.47]).

Table 4
Mean, Standard Deviation, and t-values of Physiotherapy Treatment Sciatic Pain Individuals and Pharmacotherapy on Kinesiophobia Scale (N=213)

	Physio (n=103)		Pharma (n=110)		*t(211)*	95% CI			*Cohen's d*
Variables	*M*	*SD*	*M*	*SD*		*P*	*LL*	*UL*	
TSK	38.09	10.35	41.9	8.39	2.87	.00	-2.32	1.35	0.40
ACAV	22.26	5.22	20.71	4.68	2.21	.01	0.61	1.29	0.31
SOMFO	15.83	3.67	21.19	3.28	8.82	.00	1.98	0.32	1.30

Note. TSK= Tampa Scale of Kinesiophobia, Physio= Physiotherapy, Pharma=Pharmacotherapy. ACAV= Activity Avoidance, SOMFO=Somatic Focus. *p > .05

For Kinesiophobia (TSK), participants in the pharmacotherapy group (M = 41.90, SD = 8.39) scored higher than those in the physiotherapy group (M = 38.09, SD = 10.35). This difference was statistically significant, t(211) = 2.87, p = .004, 95% CI [−2.32, 1.35], with a small-to-moderate effect size (Cohen's d = 0.40). For activity avoidance (ACAV), the pharmacotherapy group (M = 20.71, SD = 4.68) also reported higher scores than the physiotherapy group (M = 22.26, SD = 5.22). The difference was significant, t(211) = 2.21, p = .028, 95% CI [0.61, 1.29], with a small effect size (Cohen's d = 0.31). For somatic focus (SOMFO), participants in the pharmacotherapy group (M = 21.19, SD = 3.28) scored higher than those in the physiotherapy group (M = 15.83, SD = 3.67). This difference was highly significant, t(211) = 8.82, p < .001, 95% CI [0.32, 1.98], with a large effect size (Cohen's d = 1.30).

Table 5
Mean, Standard Deviation, and t-values of Individuals with Active and Passive Coping on Kinesiophobia Scale (N=213)

	Active COP (n=112)		Passive COP (n=101)			95% CI			*Cohen's*
Variables	*M*	*SD*	*M*	*SD*	*t(211)*	*P*	*LL*	*UL*	*D*
TSK	43.78	10.66	46.6	8.41	2.37	.00	-1.30	2.44	.34
ACAV	22.06	5.43	24.02	3.09	3.03	.00	-1.49	0.48	.43
SOMF	21.72	2.09	22.58	3.13	2.29	.01	-0.98	0.09	.32

Note. TSK= Tampa Scale of Kinesiophobia. ACAV= Activity Avoidance, SOMFO=Somatic Focus. *$p > .05$.

Participants who employed passive coping (M = 46.60, SD = 8.41) scored higher on Kinesiophobia (TSK) than those who employed active coping (M = 43.78, SD = 10.66). The statistical significance of the difference was t(211) = 2.37. The active coping group (M = 22.06, SD = 5.43) scored lower on activity avoidance (ACAV) than the passive coping group (M = 24.02, SD = 3.09). The difference (t(211) = 3.03) was significant. Participants who employed passive coping (M = 22.58, SD = 3.13) scored higher than those who employed active coping (M = 21.72, SD = 2.09) on somatic focus (SOMFO). With t(211) = 2.29, this difference was statistically significant.

Table 6
Mean, Standard Deviation, and t-values of Male and Female Individuals with Sciatic Pain on Coping Strategies Subscales, and Kinesiophobia scale (N=213)

	Male (n=98)		**Female (n=115)**			**95% CI**			**Cohen's d**
Variables	***M***	***SD***	***M***	***SD***	**t(211)**	***P***	***LL***	***UL***	
Act COP	28.72	4.72	27.09	3.5	2.82	.00	0.54	1.04	0.40
Pas COP	26.05	3.73	24.87	4.08	2.02	.01	0.44	1.05	0.30
TSK	38.27	6.03	37.54	3.66	0.39	.01	1.25	0.61	0.06
ACAC	22.14	5.06	23.84	4.82	2.50	.00	1.35	0.53	0.35
SOMFO	13.13	3.36	14.70	3.48	3.34	.00	1.13	0.18	0.46

Note. Act COP= Active coping, Pas COP = Passive Coping, TSK= Tampa Scale for Kinesiophobia, ACAC= Activity Avoidance, SOMOFO = Somatic Focus.*$p > .05$

Males had a significantly higher score for active coping (M = 28.72, SD = 4.72) than females (M = 27.09, SD = 3.50), t(211) = 2.82. Females had a significantly higher score for passive coping (M = 24.87, SD = 4.08) than males (M = 26.05, SD = 3.73), t(211) = 2.02. For Kinesiophobia (TSK), there was a significant difference between males (M = 38.27, SD = 6.03) and females (M = 37.54, SD = 3.66), t(211) = 0.39. Females (M = 23.84, SD = 4.82) had a significantly higher score for activity avoidance (ACAV) than males (M = 22.14, SD = 5.06), t(211) = 2.50, p =.013, 95% CI [0.53, 1.35], Cohen's d = 0.35. Lastly, females had a significantly higher score for somatic focus (SOMFO) (M = 14.70, SD = 3.48).

Table 7
Mean, Standard Deviation, and t-values of Individuals with Sciatic Pain with differences in severity on Coping Strategies Subscales, and Kinesiophobia scale

	Less Severe (n=95)		**More Severe (n=118)**			**95% CI**			**Cohen's d**
Variables	**M**	**SD**	**M**	**SD**	**t(211)**	**p**	**LL**	**UL**	
Act COP	25.88	8.19	28.76	6.09	2.85	.00	-2.05	0.69	0.41
Pas COP	29.11	10.01	32.55	5.00	3.03	.00	-2.48	0.45	0.45
TSK	32.04	13.2	39.57	8.87	5.14	.00	-3.44	0.13	0.78
ACAV	15.55	7.29	20.71	4.21	6.13	.00	-2.36	0.14	0.90
SOMOF	16.85	3.96	18.86	3.60	3.83	.03	-1.33	0.11	0.54

Note. Act COP= Active coping, Pas COP = Passive Coping, TSK= Tampa Scale for Kinesiophobia, ACAC= Activity Avoidance, SOMOFO = Somatic Focus.*$p < .05$.

Specifically, in terms of active coping, it was found that the more severe group performed significantly better than the less severe group, where M = 28.76, SD = 6.09, compared to M = 25.88, SD = 8.19, t(211) = 2.85. Moreover, in terms of passive coping, it was found that the more severe group performed significantly better than the less severe group, where M = 32.55, SD = 5.00, compared to M = 29.11, SD = 10.01, t(211) = 3.03. Furthermore, it was found that Kinesiophobia was significantly higher in the more severe group, where M = 39.57, SD = 8.87, than in the less severe group, where M = 32.04, SD = 13.20, t(211) = 5.14. In turn, it was found that avoidance of activity was significantly higher in the more severe group, where M = 20.71, SD = 4.21, than in the less severe group, where M = 15.55, SD = 7.29, t(211) = 6.13. Moreover, it was found that the more severe group performed significantly better than the less severe group in terms of somatic focus, where M = 18.86, SD.

Discussion

This study aimed to examine the matters that patients suffering from sciatica experience. Moreover, studies focused on how patients who experience sciatica cope with their condition, along with the differences in coping mechanisms that these individuals use compared to others. The link between coping mechanisms, anxiety of patients concerning their pains, and the lives of patients suffering from sciatica could be an interesting field to explore.

Patients enduring sciatic pain are expected to have a positive correlation to adaptive coping styles and a negative correlation to maladaptive coping styles and Kinesiophobia. Passive coping styles and Kinesiophobia have a negative correlation. Findings from previous studies that showed patients who have more problems have a greater chance of having sciatica have validated this hypothesis (Bąk et al., 2018;Khuzaee et al., 2024).

Moreover, the study shows that symptoms of sciatica may be associated with coping, and Kinesiophobia (Jareebi et al., 2025;Tutoglu et al., 2015) As can be seen from this present study and other literature, coping and patients' pain anxiety combine to have impacts on quality of life. Moreover, research also shows that problems associated with sciatica symptoms might affect coping mechanisms and even Kinesiophobia itself Carver, 1997; Khuzaee et al., 2024). Patients' coping mechanisms, pain anxieties, life qualities, and many other factors coexist according to the findings in the present as well as past research works.

Sciatica is also seen in men and women in the present study; thus, a risk factor is age rather than gender. Furthermore, despite the medication and physical therapy consumed, sciatica endures, as seen in earlier studies (Khuzaee et al., 2024). Sciatica patients also experience sadness, irritability, anxiety, depression, and effects on their social lives, as seen in earlier studies by Feki et al. (2024) and Reddington et al. (2022)

Sciatica is also seen in men and women in the present study; thus, a risk factor is age rather than gender. Furthermore, despite the medication and physical therapy consumed, sciatica endures, as seen in earlier studies by Dekkers (2025) and Reddington et al. (2022). Sciatica patients also experience sadness, irritability, anxiety, depression, and effects on their social lives, as seen in earlier studies by Esposto et al. (2025) and Khan et al. (2021).

This is a painful condition that makes one exhibit different behaviors, hampers one's learning process, affects one's social life, as well as geographical movements for many. To explicate the fourth hypothesis, there is a difference in the Kinesiophobia scale for those suffering from sciatica pain, yet they depend on medication and physiotherapy (Sellami et al., 2025). In line with the study, those suffering from sciatica may be afraid of the pain they are feeling or may be afraid that they may experience worse pain. After the sickness has caught up with them, all they do is wonder about the pain they are feeling. They are affected negatively on a physical and emotional level (Louw & Riera-Gilley, 2024).

In addition, the study also indicates that individuals receiving medicine or physiotherapy do not significantly differ in the level of fear of being in pain. In previous studies, the findings exist that individuals experiencing sciatica pain from the sciatica nerves and also receiving medicine and physical treatments may have a dread of being in pain (Tesio, 2025). On the contrary, the individual experiencing sciatica pain may receive medications and physical treatments, thus experiencing a continuing anxiety of pain in an unstructured setting, leading to conduct issues, which are characteristic in adult individuals (Bąk et al., 2018).

Another hypothesis holds that people with sciatica pain who use active coping mechanisms will have a better quality of life compared to those using passive coping mechanisms(Khuzaee et al., 2024). The article provides insights into how a person with sciatica who practices maladaptive or adaptive coping mechanisms differs in terms of their quality of life and further underscores the point that a person's quality of life differs dramatically. In terms of leisure and personal growth, a person with adaptive coping has a better quality of life than one using maladaptive coping mechanisms(Bąk et al., 2018).

Secondly, past studies have shown that individuals facing nerve pain as a result of sciatica have coping strategies that are different from those of the rest of the population(Carver, 1997). These individuals have adopted both active and passive coping strategies for the situation (Tahir et al., 2024). When individuals face very difficult situations as a result of the disease, they find it hard to manage the situation and therefore start looking for solutions. Using the cognitive appraisal theory, individuals have always sought internal and external help for the challenges that they face (Jensen et al., 2014; Loeser, 2000).

The next hypothesis to be used is that individuals experiencing sciatica-related pain who use active coping strategies would experience Kinesiophobia more than individuals who use passive coping strategies. It shows that there is no clear difference in terms of dreading pain among individuals who use maladaptive coping strategies and individuals who use active coping strategies (Javed et al., 2025). Past research has shown that coping strategies can be classified into two groups, i.e., active coping strategies and adaptive coping strategies, particularly in that individuals experiencing sciatica use more adaptive coping strategies in comparison to individuals who do not have any physical disability. Similar to the above, individuals with sciatica pain find situations to successfully manage their conditions, too(Esposto et al., 2025). Consequently, individuals with sciatica pain find a way to completely eliminate the problem of their phobia of pain. Going further, research proves that coping depends on the individual's subjective experience and normative stressor. Consequently, sciatica pain sufferers find a way to manage their conditions using different coping mechanisms than their experience with the phobia of pain (Khan et al., 2021; Li et al., 2022; Louw et al., 2024).

According to the findings, there are significant differences between male and female coping mechanisms in patients with sciatic pain(Turk & Wilson, 2010). Additionally, there are differences in that women fear pain more than men. These findings are supported by previous research that showed that the element of age is a contributing factor to the incidence of sciatica in adults (Rhudy & Meagher, 2000). Physical, psychological, social, and environmental factors are abnormal when suffering from a bad disease (Pan et al., 2025;Wright et al., 2021).

In addition, Sciatica nerve sufferers spend a lot of time alone and in conditions of stress, which lessens their capacity to perform in their daily life activities due to the pain they feel, which makes them afraid (Loeser, 2000). Moreover, the findings of the current research also indicated that sciatic patients, both male and female, are afraid of their conditions.

Hypothesis ten describes how sciatic pain sufferers who have less painful and more painful experiences differ in their coping mechanisms and Kinesiophobia. The results showed that the less painful and more painful groups differ in the use of coping strategies. Active avoidance coping, problem-focused coping, and religious denial coping were clearly different in those experiencing more acute pain. As identified in earlier studies (Bąk et al., 2018), individuals who undergo any kind of stress manage it (Khuzaee et al., 2024).

Previous studies have supported the above findings that individuals who suffer from sciatica pain have different coping mechanisms, quality of life, and Kinesiophobia depending on the intensity of their pain (Carver, 1997). For instance, patients with extreme pain are more prone to having a considerable dread related to pain; thus, their quality of life could be impacted, especially in relation to leisure and personal growth (Javed et al., 2025). Research established that an individual's ability to concentrate on leisure and personal growth can be impaired if they experience an increased sense of pain and dread. The individual will focus their attention on alleviating the pain (Bąk et al., 2018;Louw et al., 2024).

The effects of the findings of the current study indicate that sciatic pain has numerous long-term effects. The paper also discusses the effects of alterations depending on various settings. It shows the following effects: despite the perception of sciatica as a means of coping for the patient suffering from the condition, the symptoms also affect the patient through a number of vulnerabilities. For example, the patient uses the learning platform to cope with the sciatica condition. However, the means of managing the sciatica condition for the patient also affect the patient through anxiety related to future suffering from the illness. The patient indeed has psychological, social, and financial problems.

Conclusion

The intent of this present study was to examine the problems encountered by people with sciatic pain, coping mechanisms, and Kinesiophobia. The results yielded a correlation between coping and Kinesiophobia. From the results, it can safely be concluded that an individual's gender, intensity of the pain, and active or passive coping do indeed affect their Kinesiophobia. Since coping mechanisms are subjective in nature, sciatic pain patients display coping mechanisms in different ways. The phenomenon of active coping found specifically among people suffering from more acute sciatica pain and its relation to the survivalist approach was a fascinating finding. This leads to the conclusion that there is indeed research indicating the impacts of sciatica-related pain.

Implications of the Study

The conclusions drawn from the current study have several implications. The current study can assist individuals in understanding the manner in which various aspects of the environment and physiology combine to cause problems, which sciatica pain sufferers encounter, as well as the manner in which every individual is affected uniquely. The implication of the current study, as far as caregivers are concerned, is that it can assist an individual in understanding the diverse aspects of sciatica pain, as well as how an individual can develop efficient skills that reduce pain encountered.

The current study may further assist individuals in understanding that, apart from providing them relief from symptoms, it is important to address the impairment caused by sciatic pain, and different psychological techniques may need to be further developed to reduce impairment among individuals.

The present study may act as a catalyst to enable further research on the issues that are encountered by an individual who suffers from sciatic pain. At the policy-making level, it

may assist in amending different provisions to provide relaxation to these individuals at their workplace or any scenario wherein their involvement may be required.

Limitations and Suggestions

The following are the limitations of the present research, along with suggestions for future research.

- The design of the present study is a cross-sectional research design. A better knowledge of the effects of boarding would be achieved through using a longitudinal design of research, which would focus on the phenomena of boarding.
- As there are only five hospitals in a few places, such as Abbottabad, Islamabad, and Haripur, from which this data can be obtained, it has the limitation of less generalization. Thus, collecting data from other places can give better results.
- The limitations in this questionnaire are social desirability and response patterns. The qualitative approach can result in more precise data collection since it avoids a holistic approach. Convenient sampling was used in the present study, which also limits the generalizability of the results. Random sampling can provide more accurate and generalizable results.

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