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Enrichment: Journal of Multidisciplinary Research and Development

PROFILE OF THE NUMBER OF PATIENTS WITH CHRONIC PAIN COMPLAINTS IN KELURAHAN PEMATANG PUDU, KOTA DURI, KABUPATEN BENGKALIS, RIAU PROVINCE

Muhammad Luthfi Ismi*, John Frans Sitepu
Universitas Islam Sumatera Utara, Indonesia
Email: luthfi.muhmd@gmail.com*

ABSTRACT

Chronic pain is an unpleasant emotional or sensory experience that occurs continuously and persistently or often recurs for at least 3 months or more. Chronic pain is influenced by various factors such as biological, psychological and social factors that will continue to arise and it is not uncommon for patients with chronic pain complaints to experience pain that gets worse. Chronic pain is a health condition that has a wide impact on a person's quality of life, but even so data related to the prevalence of chronic pain in Indonesia is still very limited. Based on data collection in Pematang Pudu Village, there were 435 individuals aged 40 years and above experiencing chronic pain from May to October 2024. To identify patients with chronic pain complaints in Pematang Pudu Duri Urban Village, Mandau, Bengkalis, Riau. A quantitative descriptive research with a case series design, the sampling data collection technique is simple random sampling. The minimum sample size is 382 people using the sample size formula and using primary data collection techniques. Out of a total of 8262 individuals who met the inclusion criteria in the research, 435 people were found to have chronic pain which was dominated by 268 (61.1%) women while 167 people were men (38.4%). There are 435 individuals aged 40 years and above experiencing chronic pain in Pematang Pudu Village, Mandau, Bengkalis, Riau Province.

Keywords: *chronic pain; pain; musculoskeletal pain, prevalence*

INTRODUCTION

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or it can be described as the result of such damage (Raja et al., 2020). Chronic pain, according to the International Association for the Research of Pain (IASP), is defined as pain that persists for more than three months (Raffaeli et al., 2021).

Chronic pain can be caused by several factors. Some cases of chronic pain have clear causes, such as prolonged illnesses like arthritis or cancer, which can result in persistent pain (Finnerup et al., 2018). Injuries and diseases can also alter the body, making it more sensitive to pain. These changes can persist even after recovery from the initial injury or illness (El-Tallawy et al., 2021; Et, 2021; Yulendasari et al., 2022). Conditions like sprains, fractures, or mild infections can also lead to chronic pain. Some individuals experience chronic pain unrelated to any physical injury or disease, known as psychogenic or psychosomatic pain, which is caused by psychological factors such as stress, anxiety, and depression (Isa & Chetty, 2021; Raffaeli et al., 2021; Robinson, 2016). Many scientists believe this relationship is linked to low endorphin levels in the blood. Endorphins are natural chemicals that trigger positive feelings. The causes of chronic pain sometimes overlap, meaning a person may have two different conditions or experience both migraines and psychogenic pain simultaneously (Kumar & Lenert, 2017; Pandelani et al., 2023; Treede et al., 2019; Vader et al., 2021).

Previous research has extensively documented the prevalence and impact of chronic pain. A systematic review and meta-analysis by Filipponi et al. (2022) reported that the prevalence of chronic pain in the UK ranged from 35.0% to 51.3%, with a pooled estimate of 43.5%. Similarly, research by Dahlhamer et al. (2018) found that approximately 20.4% of U.S. adults experienced chronic pain. While these studies have provided valuable insights into the epidemiology of chronic pain, they have primarily focused on national-level data. The current research aims to examine the profile of patients with chronic pain complaints in a specific locality: Kelurahan Pematang Pudu, Duri, Mandau, Bengkalis, and Riau in 2024. This localized approach allows for a more nuanced understanding of chronic pain prevalence and characteristics within a defined community context.

The novelty of this research lies in its comprehensive assessment of chronic pain in a specific Indonesian urban setting, utilizing the Numerical Rating Scale (NRS) to classify pain severity and conducting interview-based surveys to categorize chronic pain types. By focusing on a local population, this research aims to provide baseline data that can inform targeted interventions and healthcare planning at the community level, addressing a gap in the existing literature that predominantly focuses on broader national or regional perspectives.

The history of chronic pain includes significant events that have influenced modern understanding and approaches. In 1953, John J (Raffaeli & Arnaudo, 2017). Bonica pioneered pain management by publishing the first textbook dedicated to pain, describing chronic pain as a pathological entity requiring specific therapeutic approaches. The definition of chronic pain evolved further in 1990 when Bonica described it as pain that extends beyond the normal healing period (Raffaeli & Arnaudo, 2017). Other studies have contributed important findings, such as behavioral differences between chronic and acute pain and pathophysiological changes observed through neuroimaging studies. The understanding of chronic pain continues to develop by identifying its specific biological characteristics and etiological factors (Raffaeli et al., 2021).

Based on this background, the researcher is interested in conducting a research to examine the profile of patients with chronic pain complaints in Kelurahan Pematang Pudu, Duri, Mandau, Bengkalis, and Riau in 2024. Specifically, this research aims to provide baseline data on chronic pain prevalence, determine the number of individuals experiencing this condition, identify the most common gender and age groups affected, and analyze the classification and distribution of chronic pain severity using the Numerical Rating Scale (NRS). The benefits of this research include contributing to scientific knowledge by providing a deeper understanding of chronic pain, serving as a reference for future research, and offering insights and learning opportunities for researchers to develop their expertise in this field.

METHOD

This research employs a quantitative descriptive method with a case series design to determine the number of individuals suffering from chronic pain in Kelurahan Pematang Pudu, Kota Duri, Kecamatan Mandau, Kabupaten Bengkalis, Riau Province. The research is conducted throughout 2024, from proposal preparation to the final seminar presentation. The research population includes all residents in the research area, with a sample size of 382 individuals obtained using the simple random sampling method. Data collection is conducted through questionnaires based on the Numerical Rating Scale (NRS) to measure pain levels and interview-based surveys to classify chronic pain types. The inclusion criteria consist of patients experiencing chronic pain for ≥3 months and aged 40–75 years, while the exclusion criteria include patients with pain lasting less than three months or outside the specified age range.

The data processing technique involves several steps, including editing, coding, data entry, and cleaning, to ensure the accuracy of the collected information. The data is analyzed using the univariate method, which aims to describe the frequency distribution and percentage of research variables. The findings of this research are expected to provide insights into the number of chronic pain sufferers based on age, gender, and pain severity scale within the research area. Furthermore, this research may serve as a reference for future research in public health, particularly regarding chronic pain in urban communities.

RESULT AND DISCUSSION

Research Results

From the results of the research, data collection, and processing that have been carried out on residents of Pematang Pudu Village, Duri City, Bengkalis Regency, Riau Province, with 435 respondents or samples of 435 people, the results of the research are as follows:

Univariate Analysis

Distribution of Respondents by Age

Table 1. Distribution of Respondents by Age

Age Group	Frequency	Percentage
40-49 years old	138	31.7

50-59 years old	123	28.3
60-69 years old	123	28.3
70-75 years old	51	11.7
Total	435	100

In the figure and table 4.1, the results were found as many as 435 respondents, with the age group of 40 – 40 years as many as 138 (31.7%) respondents, the age group of 50 – 59 years as many as 123 (28.3%) respondents, the age group of 60 – 69 years as many as 123 (28.3%) respondents and the age group of 70 – 75 years as many as 51 (11.7%) respondents. With this, it shows that there is no association with an increase in the frequency of chronic pain based on age or certain age groups. This is in line with several studies, the first research conducted by (Rikard et al., 2023) on chronic pain among adults in the United States from 2019 to 2021 from a census with an estimated total sample of 51,561,000 respondents.

In this research, there were 2,135,000 people in the age group of 18-24 years, 11,532,000 people aged 25-44 years, 21,236,00025 people aged 45-64 years, 14,694,000 people aged 65-84 years and 1,894,000 people over the age of 85 years suffering from chronic pain. Then the second research by (Breivik et al., 2006) was conducted in 16 European countries with an estimated number of 968 (20%) respondents in each age group of 18-30 respondents, 968 (20%) respondents in the age group of 31-40, 872 (18%) respondents in the age group of 41-50, 726 (15%) respondents in the age group of 51-60. The age group of 61-70 was 630 (13%), the age group of 71-80 was 436 (9%), and the age group over 80 years was 242 (5%) respondents. Therefore, based on the above studies, certain age groups do not affect the number of chronic pain frequencies.

Distribution of Respondents by Gender

Table 2. Distribution of respondents by gender

Gender	Frequency	Percentage
Man	167	38,4
Woman	268	61,6
Total	435	100

The number of chronic pain respondents was 435 respondents, and 268 responses were women (61.1%), while 167 respondents were men (38.4%). This is in line with research on the prevalence of chronic pain in patients routinely treated at the Soshanguve Community Health Center (Puskesmas), Tshwane District, Pretoria City, South Africa. In the research, there were 71 samples from 331 populations, 60.6% of whom were women and 39.4% were men.

Distribution of Respondents Based on Chronic Pain Classification

Table 3. Distribution Based on Chronic Pain Classification

Classification	Frequency	Percentage
Cancer	1	0,23
Muskuloskeletal	209	48
Neuropatik	135	31
Back	48	11
Post Trauma	4	0,92
Muskuloskeletal, Post Trauma	1	0,23
Neuropathic, Backward	11	2.53
Musculoskeletal, Neuropathic	21	4.8
Neuropathic and Post Trauma	2	0,46
Musculoskeletal and Back	3	0,69
Total	435	100

A total of 435 respondents were found, with the number for each classification such as cancer as many as one respondent (0.23%), Musculoskeletal as many as 209 respondents (48%), Neuropathic as many as 135 respondents (31%), Back 48 respondents (11%), Post Trauma 4 (0.92%) respondents, Musculoskeletal accompanied by Post Trauma pain as many as 1 (0.23%) respondents, Neuropathic

accompanied by Back Pain 11 (2.53%), Musculoskeletal accompanied by Neuropathic Pain as many as 21 (4.8%), Neuropathic accompanied by Post Trauma 2 (0.46%) respondents, Musculoskeletal accompanied by Back 3 (0.69%) respondents. Musculoskeletal chronic pain is the most common chronic pain encountered in this research. This is in line with several studies; the first is a research conducted by (Alshehri et al., 2021) regarding the prevalence of musculoskeletal pain in pilgrims from 59 countries, with a total of 1715 respondents, recorded as many as 1380 (80.46%) among the respondents experiencing musculoskeletal pain. Secondly, in line with research on chronic pain surveys in 16 countries in Europe conducted was recorded that as many as 1769 (42%) respondents from 4211 respondent sample populations experienced Osteoarthritis and rheumatoid arthritis pain which are classified as chronic musculoskeletal pain.

Distribution of Respondents Based on Numerical Rating Scale (NRS) Pain Scale

Table 3. Distribution of Respondents by Pain Scale

Pain Scale	Frequency	Percentage
Light (1-3)	153	35.2
Medium (4-6)	243	55.9
Weight (7-10)	39	9
Total	435	100

Pain Scale Distribution, a total of 435 results were obtained with mild pain (scale 1-3) as many as 153 (35.2%) respondents, moderate pain (scale 4-6) as many as 243 (55.9%) respondents, and severe scale pain (scale 7-10) as many as 39 (9%) respondents. The generally recorded pain scale numerical rating scale (NRS) experienced by respondents was an intermediate pain scale, namely a pain scale of 4-6 (moderate) with 243 (55.9%) respondents. The above data aligns with the research conducted by Bielewicz et al. (2022) who have adult populations in 16 European countries. It was recorded that 2779 (66%) experienced moderate-intensity pain with a pain scale grouping of 5-7 from a total of 4839 sample populations.

Therefore, based on the data collection in this research, there are as many as 435 (5.27%) individuals experiencing chronic pain with the age criteria of 40 to 75 out of a total of 8262 population in the area of Pematang Pudu Village, Duri City, Mandau, Bengkalis, Riau Province. This is in line with The prevalence of chronic pain in the world in 2016, recorded at around 20% of people in the population suffering from chronic pain (Jiang et al., 2022). However, with the limitations of this research, the amount of data that has been obtained of 5.27% is a relatively high number

Chronic Musculoskeletal Pain

The most common chronic pain is chronic musculoskeletal pain, which is defined as persistent or recurrent pain originating from musculoskeletal structures such as muscles, joints, or bones that last more than three months. Chronic musculoskeletal pain is multifactorial and has a significant impact on a person's quality of life. Some factors that can affect chronic musculoskeletal pain include contextual factors, the presence of comorbidities, the effectiveness of arthritis treatment, and access to chronic musculoskeletal pain treatment (Zhuang et al., 2022).

Musculoskeletal pain has several classifications (Watson Stephanie & Lovering Cathy, 2021). Including:

A. Bone Pain

The most common cause of bone pain is a traumatic injury, but conditions such as infections can also cause it. This type of pain is usually described as piercing and dull.

B. Muscle Pain

Muscle pain, or myalgia, is often described as cramping or spasms. It is usually caused by injury, but infection, overuse, some medications, or tumors can also cause it.

C. Tendon and Ligament Pain

Pain in the tendons and ligaments can also be caused by damage to the tendons, which connect the muscles to the bones. Movement exacerbates this type of pain, and rest reduces it.

D. Joint Pain

Joint pain, or arthralgia, has many causes. Joint pain can be acute (short-lasting) or chronic (lasting more than 12 weeks). Injuries or infections usually cause acute joint pain, while chronic conditions such as rheumatoid arthritis or osteoarthritis usually cause joint pain. Joint pain is common both at work and at rest.

E. Chest pain

Chest pain cannot always be said to be heart pain, and musculoskeletal pain can certainly be one of the causes of chest pain, such as:

a. Osteochondritis, or inflammation of the cartilage between the ribs and the chest.
b. Intercostal muscle tension is the muscle that is pulled between the ribs.

F. Fibromyalgia

It is a condition that causes pain throughout the body, especially in ligaments and tendons. This condition does not affect muscles or bones. This condition has no obvious cause. Fibromyalgia can cause pain that comes and goes or lasts throughout the day. This can be pain, soreness, stiffness, gnawing, or burning-like pain.

Chronic Neuropathic Pain

It is the second most common pain in this research, and according to Finnerup et al. (2021), Chronic neuropathic pain is pain experienced for more than 3 months caused by lesions or symptoms of disease in the somatosensory nerve. Neuropathic pain is classified into two, namely central and peripheral neuropathic pain. According to Scholz et al. (2018), Chronic neuropathic pain is classified or classified as follows:

A. Peripheral neuropathic pain

It is pain caused by lesions or diseases of the peripheral somatosensory nervous system.

1. Trigeminal neuralgia

Trigeminal neuralgia is a manifestation of orofacial neuropathic pain that is limited to one or more parts of the trigeminal nerve. This pain is recurring, arises and ends suddenly, is triggered by harmless stimuli, and is usually compared to an electric shock or described as a stabbing or being shot. Some patients experience continuous pain between these painful paroxysms.

The diagnosis consists of idiopathic trigeminal neuralgia, classical neuralgia caused by vascular compression of the trigeminal nerve, and secondary neuralgia caused by tumors or cysts at the angle of the cerebellum or multiple sclerosis.

2. Chronic neuropathic pain after peripheral nerve injury

Chronic neuropathic pain after a peripheral nerve injury is persistent or recurrent pain caused by a peripheral nerve lesion. A reasonable history of nerve trauma, the onset of trauma-related pain, and the distribution of pain within the peripheral nerve (or nerve) region are necessary for diagnosis. Negative and positive sensory symptoms or signs should correspond to the region of the nerve nerve affected. The formation of neuromas can cause pain at the site of the lesion.

Consistent with the new concept in ICD 11, the diagnosis of chronic neuropathic pain after peripheral nerve injury is also listed in the postoperative and post-traumatic pain sections. However, the content model for such a diagnosis is stored in the ICD-11 base layer. This hierarchical classification structure allows for multiple references to the content model without duplicating the diagnosis.

3. Polyneoeuropates

Chronic pain occurs in polyneuropathy caused by metabolic, autoimmune diseases, familial diseases or infections, exposure to environmental or occupational toxins, or treatment with neurotoxic drugs. Chronic pain also occurs in polyneuropathy of unknown etiology. Pain can be an early symptom of neuropathy or develop over the course of the disease (Case Sketch 1). Negative and positive sensory symptoms or signs must correspond to the anatomical distribution pattern of polyneuropathy. Chemotherapy-induced peripheral neuropathy is a form of pain polyneuropathy that falls under the classification of chronic cancer-related pain.

4. Postherpetic neuralgia

Postherpetic neuralgia is defined as pain that persists for ≥3 months after the onset of healing of shingles. The innervation region of the first trigeminal nerve branch (ophthalmic) and thoracic dermatome are the most common sites for chronic pain after shingles. Postherpetic neuralgia can appear as a continuation of acute pain associated with a skin rash or develop after a painless

interval. Negative and positive sensory symptoms or signs should correspond to the affected cranial nerve innervation region or peripheral dermatome (or dermatome).

5. Radiculopathy

Chronic pain radiculopathy is persistent or recurrent pain caused by lesions or diseases involving the roots of the cervical, thoracic, lumbar, or sacral nerves. Degenerative changes in the spine, including ligaments and intervertebral discs, are the most frequent causes, but painful radiculopathy can also result from trauma, tumors, or neoplastic meningitis due to infection, bleeding or ischemia, diabetes mellitus, rheumatoid arthritis, or due to iatrogenic lesions, for example, during injection therapy or surgery. Pain inside the affected dermatom (radicular pain) is necessary for diagnosis. Pain can arise spontaneously but is usually exacerbated or triggered by taking or maintaining a certain body position or while moving. Negative and positive sensory symptoms or signs should correspond to the innervation region of the affected nerve root. Musculoskeletal pain associated with painful radiculopathy should be classified separately.

6. Certain and other non-specific chronic peripheral neuropathic pain

ICD-11 contains a residual category for other chronic peripheral neuropathic pain conditions that are not covered by the diseases mentioned above, for example, chronic neuropathic pain caused by carpal tunnel syndrome. Additional categories for unspecified conditions provide a classification of disorders for which information is insufficient to establish an appropriate diagnosis.

Chronic central neuropathic pain

Lesions or diseases of the central somatosensory nervous system cause chronic central neuropathic pain.

A. Related to spinal cord injuries

Lesions or diseases of the somatosensory pathways in the spinal cord cause chronic central neuropathic pain associated with spinal cord injury. The definition of spinal cord injury consists of impaired spinal nerve function resulting from external forces or disease processes. Pain can occur spontaneously or be caused by an increased response to a painful stimulus (hyperalgesia) or a painful response to a normally painless stimulus (allodynia). Diagnosis requires a history of lesions or diseases of the spinal cord and a neuroanatomically reasonable distribution of pain, i.e., the pain felt in the dermatome at or below the level of injury in the area with sensory impairment. This cause of central neuropathic pain is also included in the classification of postoperative and post-traumatic chronic pain.

B. Related to brain injury

Chronic central neuropathic pain associated with brain injury is caused by lesions or diseases in the somatosensory cortex, connected brain regions, or related pathways in the brain. A reasonable history of brain trauma, the onset of trauma-related pain, and neuroanatomically reasonable distribution of pain are necessary for diagnosis. Negative or positive sensory symptoms or signs that indicate brain involvement must be present in the body region corresponding to the brain injury.

C. Chronic central pain after stroke

Chronic central pain after stroke is caused by cerebrovascular lesions, infarctions, or bleeding in the brain or brain stem. Pain can occur spontaneously or be caused by an increased response to a painful stimulus (hyperalgesia) or a painful response to a normally painless stimulus (allodynia). The diagnosis of post-central stroke pain requires a history of stroke and a neuroanatomically reasonable distribution of pain, i.e., pain felt in areas of the body represented in the central nervous structure affected by the stroke. Negative or positive sensory symptoms or signs that indicate brain involvement must be present in the affected part of the body affected by the stroke.

D. Chronic central neuropathic pain in multiple sclerosis

Chronic central neuropathic pain in multiple sclerosis is caused by lesions in the somatosensory brain region or its connecting pathways. Pain can occur spontaneously or be caused by an increased response to a painful stimulus (hyperalgesia) or a painful response to a stimulus that is normally painless (allodynia). Diagnosis requires a history of multiple sclerosis and a neuroanatomically reasonable distribution of pain. Negative or positive sensory symptoms or signs that indicate brain or spinal cord involvement should be present in the affected area of the body. Pain that is primarily related to flexibility should be classified as musculoskeletal pain.

E. Certain and other non-specific chronic central neuropathic pain

Residual categories are available for certain or other non-specific chronic central neuropathic pain conditions.

Risk Factors for Chronic Pain

Creed (2020) states the high number of chronic pain prevalence can be caused by a variety of risk factors, as follows:

A. Female gender.

The higher prevalence of chronic pain in women than men is consistent with previous studies, although the factors that make women more at risk of chronic pain are not known for certain. However, pain studies in the laboratory show women are more sensitive to pain stimuli. In addition, laboratory tests that examine the modulation of conditioned pain called conditioned pain modulation (CPM), which is the ability to reduce pain. In addition, a pain test in a laboratory that examines the decreasing process of pain inhibition is referred to as CPM, and research shows low CPM is a risk factor for chronic pain, meaning that individuals with low CPM are more at risk (Umeda & Kim, 2019).

B. Old/middle age

Research indicates a higher prevalence of chronic pain in elderly patients compared to younger age groups. The relationship between old age and chronic pain, including its reporting, is complex, with multimorbidity acting as an independent risk factor. As we age, the incidence of multimorbidity also increases, therefore heightening the risk of harmful stimuli or injuries that can trigger chronic pain. Evaluating pain in elderly patients can be challenging as older adults are often hesitant to discuss or disclose their pain levels. Age-related diseases, such as cognitive decline and dementia, can complicate the identification and management of chronic pain. Chronic pain is not exclusive to older adults. Research across 42 countries revealed a significant prevalence of self-reported chronic pain among adolescents: 20.6% reported experiencing pain in at least two areas (head, abdomen, and back). Additionally, chronic pain impacts up to 30% of individuals aged 18-39 years. Young age appears to be a risk factor for chronic postoperative pain (Umeda & Kim, 2019).

C. History of injury due to violence, harassment, or interpersonal violence

Exposure to stressors early in life, such as emotional trauma or physical trauma (e.g., premature birth or orphaning), increases the risk of chronic pain in adulthood. Early stress can interfere with the hypothalamic-pituitary-adrenal axis function, which plays a role in the stress response. Adolescents with a history of traumatic Adverse Childhood Experiences (ACEs) have a greater chance of experiencing chronic pain than those who do not. Research on children and adolescents with chronic pain showed that the most common ACE is having a family member with a mental illness; 55% of children with multiple ACEs suffer from chronic pain. The number of ACEs experienced is directly proportional to the extent of chronic pain and psychological distress, such as anxiety and depression. Individuals with a history of personal violence or abusive relationships are more likely to experience chronic pain later in life, regardless of the age at which the violence/abuse occurred or whether it occurred in a domestic or public setting (Mills et al., 2019).

D. Smoke

The prevalence of smoking is higher in individuals with chronic pain compared to those who do not experience it. Heavy smokers with chronic pain reported higher pain intensity and a greater number of pain locations compared to non-smokers. Smoking and chronic pain are directly proportional to the number of cigarettes smoked. Smokers with chronic pain are more prone to tobacco addiction, smoke more cigarettes per day, and are more likely to quit smoking than those who do not experience chronic pain (Mills et al., 2019).

Compared to non-smokers, smokers experience musculoskeletal pain more often. Smokers experience longer, more severe pain than non-smokers. First, smoking can reduce the regulation of the hypothalamic-pituitary axis, which can increase sensitivity to pain. Second, the dorsal ganglion has acetylcholine receptor nerves sensitive to nicotine. Finally, in the central nervous system, nicotine can work through its ability to stimulate the release of stimulatory amino acids with pro-nociceptive effects (Felson & Zhang, 2015).

E. High body mass index (obesity)

People who are overweight and obese carry more weight, which leaves the body and its joints (including capsules, cartilage, ligaments, and tendons) subject to higher physical loads and

mechanical demands, potentially leading to the development of (chronic) pain. Research shows a link between overweight, obesity, and low-grade systemic inflammation. This is due to a direct correlation between the presence of mild inflammation and the amount of adipose tissue (body fat). This condition is suspected to trigger dysfunction in adipose tissue. Consequently, cells in adipose tissue release certain signals (such as adipokine and active metabolites) that create a pro-inflammatory profile and lead to inflammation throughout the body. This can be addressed by a decrease in belly fat that can potentially reduce pain and lower the systemic inflammatory markers that play a role in chronic pain (in general, not just limited to the joints that support weight).

Individuals with obesity showed a different composition of gut bacteria (dominance of Firmicutes versus Bacteroides). This condition triggers a series of processes that lead to increased energy absorption from hard-to-digest carbohydrates. This has the potential to increase the formation of fat cells in the liver. Based on this mechanism, there is a link between obesity, gut microbiota, and other chronic (inflammatory) problems, such as chronic pain (Malfliet et al., 2021).

F. Alcohol

Although the analgesic effects of alcohol are temporary, chronic pain patients often use them as a self-medication. Excessive alcohol use can lead to resistance to its limited analgesic effects. Alcohol withdrawal can worsen pain sensitivity, thus encouraging a cycle of alcohol abuse that gets worse. Patients look for analgesic effects at higher doses as the tolerance develops and to avoid the pain associated with alcohol withdrawal. Evidence suggests that dysregulation of neuro circuits and neurochemistry of pain that is the same as the cause of chronic pain may underlie alcohol dependence (Mills et al., 2019).

CONCLUSION

Based on the research conducted in Kelurahan Pematang Pudu, Duri City, Riau Province, in 2024, it was found that out of a total population of 8,262 people, 435 individuals (5.29%) experience chronic pain, with an age range of 40 to 75 years. The research reveals that women are more affected by chronic pain, accounting for 61.1% of sufferers, compared to 38.4% of men. Interestingly, the research did not find a significant association between age groups and the prevalence of chronic pain. The most common type of pain reported was musculoskeletal pain, affecting 48% of the respondents. Regarding pain intensity, most sufferers (55.9%) reported experiencing moderate-scale pain, as measured by the Numerical Rating Scale (NRS), with scores ranging from 4 to 6. These findings provide valuable insights into the profile of chronic pain sufferers in this specific urban community, which can serve as a foundation for developing targeted interventions and improving pain management strategies at the local level.

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