Open Access Library Journal
2025, Volume 12, e13680
ISSN Online: 2333-9721
ISSN Print: 2333-9705

Study of Morbid Pain and Anxiety on Behavioral Consequences in Elderly People Followed at Saint Joseph Hospital of Limete

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How to cite this paper: Pululu, A.M., Magoga, M.K., Lubaki, F.N., Mvuanda, G.D., Ngangu, D.B. and Nkodila, A.N. (2025) Study of Morbid Pain and Anxiety on Behavioral Consequences in Elderly People Followed at Saint Joseph Hospital of Limete. *Open Access Library Journal*, **12**: e13680.
https://doi.org/10.4236/oalib.1113680

Received: May 27, 2025
Accepted: July 21, 2025
Published: July 24, 2025

Abstract

Background: The prevalence of comorbid pain and anxiety in clinical observations is high, and the number of publications on the elderly has increased in recent years. Nevertheless, few studies have evaluated comorbid pain and anxiety in the Democratic Republic of Congo (DRC). The aim of this study was to evaluate pain and anxiety and their behavioural consequences in elderly patients followed at Saint Joseph Hospital (SJH) of Limete**. Methods:** This is a descriptive study, on a sample of 141 patients, aged 65 and over, consulted or hospitalized at the SJH of Limete from August to September 2013. Sociodemographic and clinical characteristics were studied. **Results:** The mean age of patients was 68.5 ± 11.3 years, with a preponderance in the 65 - 69 age group (41.8%); the majority of patients were female (55.3%), *i.e.* a sex ratio of 1:1. Nearly 42% of patients had a primary school education, 53.9% were married and 32.6% lived off their children. The majority, 78.7% were hypertensive and 51.0% suffered from severe anxiety/depression, the vast majority 95.0% had no pain-related behavioral impact and more than half 56.0% suffered from moderate pain. The main causes of pain were degenerative diseases (33.3%). Patients benefited from anti-inflammatory medication (50.4%) for their pain. **Conclusion:** These results show that the impairment of quality of life in the elderly is proportional to the intensity of pain.

Subject Areas

Epidemiology, Geriatrics

Keywords

Pain, Anxiety, Repercussions, Elderly People

1. Introduction

Pain has a profound impact on quality of life leading to physical, psychological and social consequences [1]. It can reduce mobility and lead to a loss of strength. It can compromise the humanitarian system and interfere with a person's ability to eat, concentrate, sleep or interact with others [2]. The physiological consequences are also profound. A WHO study showed that people living with chronic pain are 4 times more likely to suffer from depression or anxiety [3]. The physical effect of chronic pain and the physiological strain it causes can even influence the course of the disease [4]. For a long time, pain in the elderly was considered to be part of normal, physiological ageing. Nowadays it is recognised as an illness in its own right [5]. Often, the elderly person, perceives their pain as an inevitability and accepts it more or less [6]. Around 80% of people who need it do not have access to pain treatment, including around 4 million cancer patients and 0.8 million people suffering from terminal HIV/AIDS [7]. The prevalence of persistent pain increases with age. In one study, the percentage of people who said they had experienced pain in the last two weeks reached 25% in those aged over 60, 29% in those aged between 71 and 80 [8] [9]. Studies on pain assessment are rare in the Democratic Republic of Congo (DRC). Pain in the elderly is often undervalued and undertreated in the DRC which is why we conducted this study which aimed to assess pain, anxiety and the repercussions on the behaviour of the elderly at Saint Joseph Hospital in Limete, DRC.

2. Methods

2.1. Study Design and Population

This was a descriptive study of in-patients and out-patients aged 65 years and over at Saint Joseph Hopital of Limeté. The study population consisted of all inpatients and outpatients who met the inclusion criteria and were enrolled in the study. The inclusion criteria were subjects aged 65 and over who were physically and psychologically able to answer the questions and who verbally agreed to participate in this study.

2.2. Data Collection and Variables of Interest

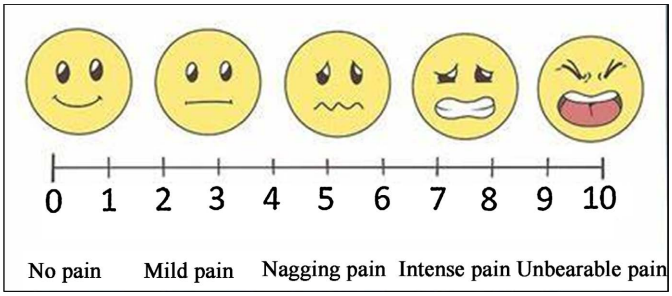
The interview was conducted face-to-face with the patients using a carefully designed questionnaire. The variables of interest included socio-demographic characteristics: age, sex, level of education, source of income, occupation, marital status, cohabitation; medical history: HTA, Diabetes, Rheumatism and others, diagnosis, symptomatic treatment (pain), pain intensity and repercussions on patients'

condition.

Evaluating pain

Pain is above all a personal experience, sometimes difficult to express. Even if they can't reflect everything you're going through, various tools provide useful indications for your care. They are also suitable for young children, people in a coma or with communication difficulties.

There are three main methods for measuring pain intensity at the present time: the numerical scale (you assign a score from 0 to 10), the visual analogue scale (you position the cursor on a line), and the simple verbal scale (you describe your pain in simple words). In this study, we used the numerical scale to assess pain intensity. The numerical scale is a pain scale in which the patient assigns a number between 0 and 10 to his or her pain, with 0 representing no pain and 10 representing unbearable pain. This scale provides a more precise measure of pain intensity (Figure 1).



Each level corresponds to a score that the caregiver asks the patient to give. No pain = score between 0 - 1; Mild pain = score between 2 and 3; Nagging pain = score between 4 and 6; Intense pain = score between 7 and 8 and Unbearable pain = score between 9 and 10.

Figure 1. Pain assessment instrument.

2.3. Statistical Analysis

Excel 2007 and SPSS 200 were used for data management and analysis. Quantitative variables are represented as mean ± standard deviation in the tables and illustrated as histograms. Quantitative variables are represented as headcounts and percentages, and are illustrated in pie or bar charts.

3. Results

The mean age of patients was 69.3 ± 12.4 years, with extremes ranging from 65 to 94 years. Of the 141 patients surveyed, 55.3% were women, with the majority aged between 65 and 69 (41.8%); 42.5% had a primary education, followed by 27.6% who had no education; 53.9% were married, with self-employed and housewives in equal proportions (22.7%) (Table 1).

Data on patients' sources of income showed that 32.6% had money from their children, followed by 31.6% who had pension income (Table 2).

Assessment of pain and anxiety

More than half the patients surveyed (56.0%) had moderate pain, followed by

Table 1. Socio-demographic characteristics.

Variable	Over all (n = 141)	Male (n = 63)	Female (n = 78)
Age range	69.3 ± 12.4	74.5 ± 13.9	66.8 ± 11.7
65 - 69 years	59 (41.8)	22 (34.9)	37 (47.4)
70 - 74 years	24 (17.0)	7 (11.1)	17 (21.8)
75 - 79 years	24 (17.0)	11 (17.5)	13 (16.7)
80 - 84 years	23 (16.3)	15 (23.8)	8 (10.3)
85 - 89 years	10 (7.1)	7 (11.1)	3 (3.8)
90 - 94 years	1 (0.7)	1 (1.6)	0 (0.0)
Level of education			
None	39 (27.6)	6 (9.5)	33 (43.3)
Primary	60 (42.6)	30 (47.6)	30 (38.5)
Secondary	35 (2.8)	21 (33.4)	14 (17.9)
University	7 (5.0)	6 (9.5)	1 (1.3)
Marital status			
Married	76 (53.9)	40 (63.5)	36 (46.2)
Single	8 (5.7)	3 (4.8)	5 (6.4)
Divorced	15 (10.6)	5 (7.9)	10 (12.8)
Widowed	42 (29.8)	15 (23.8)	27 (34.6)
Profession			
Liberal	56 (39.7)	24 (38 .0)	32 (41.0)
No profession	34 (24.1)	25 (38.7)	9 (11.5)
Civil servant	18 (12.8)	13 (20.6)	5 (6.4)

Table 2. Breakdown of patients by source of income.

Source of income	Over all (n = 98)	Male (n = 40)	Female (n = 58)
Pension	31 (31.6)	20 (50.0)	11 (19.0)
Money from children	32 (32.6)	10 (25.0)	22 (37.9)
Rent	1 (1.0)	0 (0.0)	1 (1.7)
Small business	19 (19.4)	4 (10.0)	15 (25.8)
Farming	15 (15.3)	6 (15.0)	9 (15.5)

patients with mild pain (27%). Anxiety/depression was predominant (51.0%), followed by moderate anxiety/depression (44.0%). The vast majority of patients surveyed (95.0%) had no effect at all on their behaviour (Table 3).

Table 3. Evaluation of pain, anxiety and repercussions.

Variable	Effective (n = 141)	Percentage
Intensity of pain		
Mild	38	27.0
Moderate	79	56.0
Severe	24	17.0
Anxiety		
Mild	7	5.0
Moderate	62	44.0
Severe	72	51.0
Impact on behaviour		
Not at all	134	95.0
Somewhat	5	3.6
Moderate	1	0.7
A lot	1	0.7

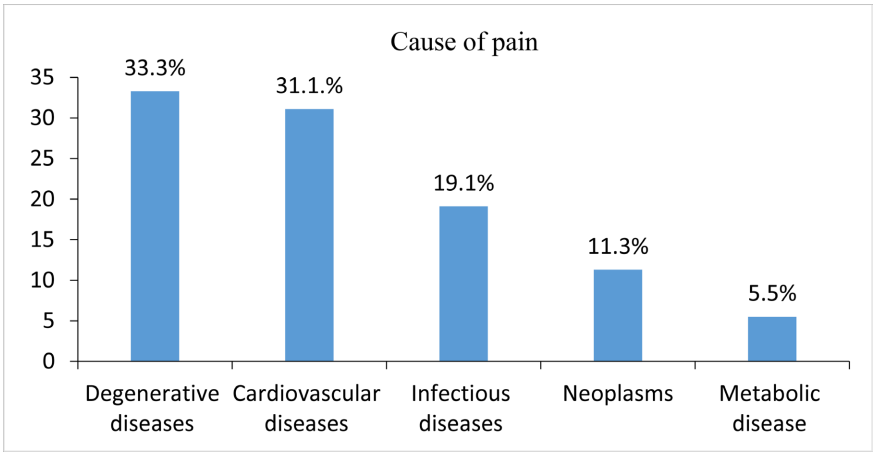


Figure 2. Breakdown of patients by cause of pain.

Degenerative diseases come first with 33.3%, followed by cardiovascular diseases with 31.2%, infectious and parasitic diseases (19.1%), tumours (11.3%) and metabolic diseases (5.5%) (Figure 2).

The use of anti-inflammatory drugs to treat pain is 50.5%, followed by physiotherapy (21.3%) (Figure 3).

4. Discussion

The overall aim of the study was to assess pain and anxiety and their behavioural consequences in the elderly. Only 17% of patients complained of severe pain. The existence of multiple pathological problems in elderly subjects (over 85 years of age) probably explains the drop in the relative frequency of the pain reason

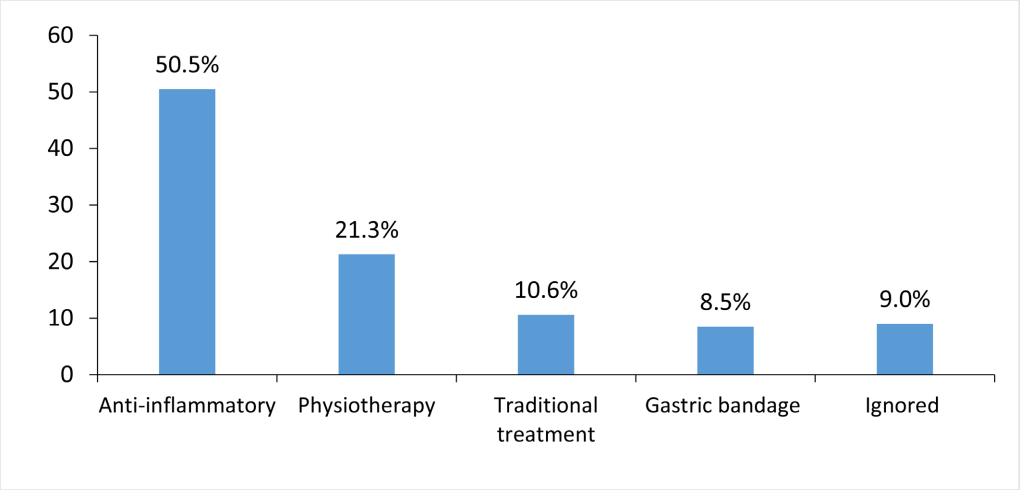


Figure 3. Breakdown of patients by treatment.

compared with other reasons for consultation, but does not provide any information about a possible drop in the prevalence of pain [10]. Also the use of the VAS by our patients poses problems consequently the estimation of the intensity of their pain remains generally random [11] [12]. The low level of education is also to be taken into account as reported in our results which found the primary level in the majority of our patients. (42.6%). The high prevalence of severe anxiety (51%) in this study could be explained by the existence of a correlation between pain and anxiety [13]-[17]. The pain had no repercussions whatsoever on the tactile behaviours proven by this study (95%); patients with moderate pain intensity were more likely (56%). These results differ from those reported in the literature. This difference is probably linked, on the one hand, to a difference in the tools used to measure intensity in the Iowa study and, on the other, to the fact that the VAS is too abstract for elderly people, who have difficulty understanding the link between their pain and a [18] [19] trait. To treat pain, the majority of our patients were on anti-inflammatory medication (50.4%). The WHO recommends treating pain according to the 3 palliations, the first of which concerns pain of low intensity where analgesics are generally used, the second is aimed at pain of moderate intensity resistant to tier 1 products, opiates are used, triremes are indicated in cases of chronic pain especially in oncology and palliative care, also in front of any pain resistant to tier 1 and 2 products. Morphine [20] is used.

Limitations of the study: Some patients refuse outright to talk to us while others agree but refuse to answer certain questions which they feel are about their privacy. The EVA was confused with a useful tool that measured pain and whose application to the painful area would relieve the patient.

5. Conclusion

Quality of life in the elderly is affected in proportion to the intensity of the pain. The more intense the pain, the greater the impact on quality of life. Hence the need for early and appropriate treatment (according to WHO levels) to prevent

its impact on quality of life, leading to physical, psychological and social consequences.

Acknowledgements

We would like to thank all those who accompanied us in the data collection as well as in the writing of this article; the doctors who willingly approved and supervised the collection of data for this study.

Authors' Contributions

AMP conceptualized the research topic, AMP and ANN drafted the protocol, ANN for the methods, prepared the submission for institutional review board approval, MKM, FNL, GDD and DBN supervised the data collection and drafted the manuscript. ANN provided guidance for the statistical analysis. AMP provided content oversight for the manuscript. All authors read and approved of the final manuscript.

Availability of Data and Materials

The datasets analyzed during this study are available from the corresponding author on reasonable request.

Ethics Approval and Consent to Participate

Verbal informed consent was obtained from all the participants and/or their legally acceptable representatives. Non-literate participants were accompanied by a literate peer of their choice.

Conflicts of Interest

The authors declare no conflicts of interest.

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