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# Social media as a source of information for patients with knee osteoarthritis

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## Abstract

**Background** Knee osteoarthritis (KOA) is a chronic, disabling condition without a definitive cure, and current management strategies prioritize symptom relief and slowing disease progression rather than addressing the underlying cause. Therefore, KOA patients turn to social media (SM) in the hope of finding a solution or a treatment to relieve their pain. The main goal of this study was to explore the prevalence of information sought by KOA patients on SM and to determine factors associated with its use.

**Methods** This cross-sectional study included adult patients followed in our rheumatology department for KOA according to the American College of Rheumatology criteria for > 3 months. All patients underwent a standardized questionnaire-based interview covering their sociodemographic and clinical data, including age, level of education, body mass index, disease duration, and the presence of comorbidities. Pain intensity was measured using the Visual Analog Scale (VAS). We used the Lequesne index for KOA to assess functional impairment, and the Kellgren and Lawrence classification to assess the severity of KOA. We utilized the Trust in Physician Scale (TPS) to measure patients' trust in their physicians. In contrast, the Beliefs about Medicines Questionnaire (BMQ)-Specific Concerns subscale assessed patients' concerns about prescribed medication. Psychosocial risk factors were assessed using the Pain Catastrophizing Scale (PCS), the Generalized Anxiety Disorder (GAD-7), and the Patient Health Questionnaire for depression (PHQ-9).

**Results** A total of 178 patients were included, with an average age of 58 ± 9,915 years and a female predominance (88,2%). The average progression period of KOA was around 3 years [1; 8,5] and the median pain score on the VAS was 4,79 ± 2,214. A third of KOA patients turned to SM for health information, mainly YouTube. While 17% trusted the content, a comparable 10% shared it with their doctors. The main factors associated with SM use were younger age, higher level of education, and higher pain catastrophizing.

**Conclusion** These findings highlight the significant potential of SM platforms for KOA patients, whether it's enhancing their education and awareness, fostering peer support and community connections, or enabling better communication and remote monitoring with healthcare providers.

**Keywords** Knee osteoarthritis, Social media, Source of information

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## Background

As of 2024, social media (SM) connects over 5.17 billion people worldwide, representing approximately 63.7% of the global population. These social networks became integral to daily life, with users spending an average of 2 h and 20 min per day engaging across various apps. Popular platforms like Facebook, YouTube, and Instagram collectively boast billions of monthly active users, highlighting their significance in modern communication, entertainment, and information sharing [1, 2]. These SM platforms are progressively employed in primary healthcare, offering innovative advantages for healthcare providers, patients, and communities. Professionals now have the chance to present themselves individually, and healthcare practices can also showcase their organizations across different SM platforms. As the upcoming generation of patients grows up in a SM-saturated society, its role in healthcare is expected to expand further. SM already serves as a vital platform for peer interaction and support, especially for patients with musculoskeletal diseases. A global survey found that around 63% of patients with such conditions use SM to connect with others who share similar health challenges, helping them exchange experiences, gain knowledge, and better manage their diseases [3]. While SM fosters meaningful connections and knowledge sharing among patients, it simultaneously raises concerns about the accuracy of health-related information shared on these platforms. Recent research highlights that the veracity of medical information on SM is a significant concern, as platforms often host both accurate data and substantial misinformation. This inaccurate information often spread rapidly due to the use of emotional language and the nature of social sharing. Users with limited health literacy or critical thinking skills are more likely to trust and disseminate false claims, potentially leading to adverse health outcomes [4].

All of these online tools can be used as a source of information in multiple disease, but our main focus in this study is knee osteoarthritis (KOA), a condition that impacts millions globally [5]. KOA is characterized by clinical symptoms and radiological indicators, affecting various tissues in and around the joint, with cartilage playing a pivotal role [6]. As KOA progresses, patients experience pain during movement, which eventually persists even at rest, significantly impacting their quality of life. The chronic pain contributes to muscle weakness, reduced range of motion, and joint stiffness, further exacerbating the functional handicap [7]. This combination of chronic pain and reduced function often leads to a cycle of inactivity, muscle atrophy, and worsening joint health, leaving patients with a long-term functional handicap. Studies have shown that OA-related pain not only affects physical mobility but also causes psychosocial stress, depression, and a decrease in overall well-being [7, 8].

Unfortunately, KOA remains a chronic, disabling condition without a definitive cure, and current management strategies focus on symptom relief and slowing disease progression rather than addressing the underlying cause. Therefore, KOA patients turn to SM in the hope of finding a solution or a treatment to relieve their pain. To the best of our knowledge, there are very few studies focusing on the use of SM in osteoarthritis, and none that specifically concentrate on KOA. Therefore, it is crucial to investigate the extent of information sought by KOA patients on SM, assess the level of trust they place in the information they encounter, and identify the factors influencing their use of SM platforms. Overall, our study will help guide future research in developing targeted informational programs on SM that address the needs of patients; while ensuring they are not exposed to risky behaviors. The main goal of this study was to explore the prevalence of information sought by KOA patients on SM and to determine factors associated with its use.

## Materials and methods

### Study design

A cross-sectional study was conducted in the University Hospital of Tangier, more specifically in the rheumatology department including patients with KOA.

### Population

The inclusion criteria were patients older than 18 years, consulting in the rheumatology department for KOA according to the American College of Rheumatology criteria [9] for more than 3 months. Patients were consecutively recruited during routine consultations, and only those who agreed to participate were included. This recruitment method aimed to minimize selection bias and ensure a representative sample of patients followed in our department.

Patients with cognitive impairments that hindered their ability to complete the questionnaires or who lacked the capacity to provide informed consent were excluded from this study.

### Questionnaire

#### *Sociodemographic and clinical data*

All patients underwent a standardized questionnaire-based interview covering their sociodemographic and clinical data, including age, level of education, body mass index (kg/m2), disease duration (years) and the presence of comorbidities.

Past and current comorbidities were evaluated using a predefined yet non-exhaustive list of selected conditions, including hypertension, diabetes, dyslipidemia, cardiovascular diseases (myocardial infarction or stroke), tuberculosis infection, cancer and lymphoma, gastrointestinal disorders (such as ulcers and inflammatory bowel diseases), hepatitis, pulmonary diseases (chronic obstructive pulmonary disease and asthma), chronic kidney disease, osteoporosis, and depression. Participants self-reported their comorbidities at baseline.

The **Visual Analog Scale (VAS)** (0–10 cm) was used for measuring pain intensity due to its simplicity and high reliability [10]. We also used the **Lequesne index of severity for KOA** to asses functional impairment [11]. As well, the **Kellgren and Lawrence (KL) classification** was utilized to assess the radiographic severity of KOA [12].

### *Social media use*

A questionnaire was developed to assess the use of SM. To enhance its reliability in this study, cognitive interviews were conducted with a sample of KOA patients, who provided feedback on each item, specifically regarding clarity and acceptability. The patients also suggested any items that could be removed or added. Based on this feedback, certain modifications were implemented. A review committee, including two rheumatology professors and a professor specializing in physical medicine and rehabilitation, then examined the final version and approved its content.

Furthermore, the questionnaire included yes-or-no questions regarding the use of seven different types of SM, as well as open-ended questions on whether the patient regularly follows particular influencers or pages, whether they trusted the information obtained, and whether or not the sources they found were useful. There were also questions related to whether they discussed the found content with the physician and the desirability of having healthcare professionals on social networks. Three minutes were sufficient time to complete the questionnaire.

### *Other variables*

To measure patients' trust in their relationship with physicians, we utilized **the Trust in Physician Scale (TPS)** [13]. It includes 11 items, each one is scored on a 5-point Likert (1 through 5), allowing the participants to choose where they lie in agreement with each of a series of statements. The total score is the average of the individual scores for each item and higher values indicate positive perception [13]. The TPS is recognized as a reliable and valid measurement tool for assessing trust in patients with KOA, emphasizing its effectiveness in capturing key dimensions of the patient-physician relationship [14].

More variables pertaining to patients, such as pain catastrophizing, a psychological response to pain characterized by an exaggerated perception of the pain's threat and a sense of helplessness in managing it [15]. It was assessed using the validated Arabic version of the **Pain Catastrophizing Scale (PCS)** [16]. It evaluates pain-related thoughts across 3 key dimensions: rumination, magnification, and helplessness. Each item is rated on a 5-point scale (0 = "not at all" to 4 = "all the time"), with total scores ranging from 0 to 52. A total PCS score of 30 or higher is often considered a threshold indicating significant catastrophic thinking, warranting targeted interventions. Higher scores are linked to increased pain intensity and disability. The PCS is widely used to identify individuals who may benefit from cognitive strategies to improve pain management and quality of life [16].

Moreover, the validated Arabic version of **the Beliefs about Medicines Questionnaire (BMQ)-Specific Concerns subscale** was used to assesses patients' specific concerns regarding their prescribed medication, especially in chronic illness [17]. This subscale includes statements about potential adverse effects or long-term harms patients may associate with their medication. Patients rate their agreement on a Likert scale from 1 (strongly disagree) to 5 (strongly agree) for each item, with higher scores reflecting more concerns. This score, when combined with the Necessity subscale, provides insights into the patient's overall perception whether they primarily view the medication as beneficial or are more apprehensive about its risks. For interpretation, a score above 24 on the Necessity subscale suggests strong belief in the medication's importance, while a score above 15 on the Concerns subscale reflects significant worry about side effects. Higher necessity and lower concern scores generally indicate better medication adherence. These thresholds help identify patients who may benefit from education or support regarding their medication adherence [17].

Additionally, the severity of depression was assessed by the validated Arabic version of the Patient Health Questionnaire (PHQ-9) [18]. And finally, the validated Arabic version of the Generalized Anxiety Disorder scale (GAD-7) [19] was used to assess the severity of generalized anxiety disorder symptoms in individuals.

### Statistical analysis

The statistical software IBM SPSS, version 21.0, was employed to assess the data. A descriptive analysis was conducted, with quantitative variables expressed as means and standard deviations or, depending on the distribution, as medians and quartiles, and qualitative variables as numbers and percentages. To identify factors independently associated with SM use, a binary logistic regression was performed. The multivariate analysis aimed to determine which variables remained significantly associated with SM use after adjusting for potential confounders. Variables with $p < 0.05$ in the univariate analysis were included in the multivariate model.

**Table 1** Presentation of the socio-demographic and clinical data of the study sample

| | ***N*** **= 178** |
|---|---|
| Age (years)[a] | 58,48 ± 9,915 |
| Female gender[b] | 157 (88,2%) |
| Educational level[b] | |
| Unschooled | 127 (71,3%) |
| Primary/middle school | 24 (13,5%) |
| High school | 18 (10,1%) |
| University | 9 (5,1%) |
| Comorbidity[b] | 116 (65,2%) |
| BMI (kg/m$^2$) [a] | 30,72 ± 5,557 |
| VAS pain[a] | 4,79 ± 2,214 |
| Disease duration (years)[c] | 3 [1 ; 8,5] |
| Lequesne index[b] | |
| > 10 | 81 (45,5%) |
| ≤ 10 | 97 (54,5%) |
| KL classification[b] | |
| Grade 1 | 10 (5,6%) |
| Grade 2 | 115 (64,4%) |
| Grade 3 | 45 (25,6%) |
| Grade 4 | 8 (4,4%) |
| Treatment received for KOA[b] | |
| Analgesics | 148 (83,4%) |
| NSAIDs | 103 (58,1%) |
| SySADOA | 120 (67,5%) |
| Corticosteroids injections | 37 (21%) |
| Viscosupplementation | 3 (2,7%) |

BMI: Body Mass Index; VAS: Visual Analogic Scale; KL: Kellgren and Lawrence; OA: Osteoarthritis;

NSAIDs: non-steroidal anti-inflammatory drugs; SySADOA: Symptomatic Slow-acting drugs for OA

The values are presented as:

[a] Mean ± standard deviation

[b] Number of patients (percentage)

[c] Median [interquartile range]

The selection of variables was based on their clinical relevance and statistical significance. To avoid collinearity, highly correlated variables (which was identifying using the variance inflation factor) were excluded from the model. Overfitting was tested using 10-fold cross-validation, which showed slight to moderate variance in model performance between different data subsets. A p-value < 0.05 was considered statistically significant.

## Results

### Sociodemographic & clinical data of the participants

The study consisted of 178 patients. Table 1 presents the socio-demographic and clinical characteristics of the patients. The average age was 58,48 years. A female predominance (88,2%) was noted. Moreover, education levels were remarkably low, with 71,3% of the patients having no formal education. The vast majority of the study sample (65,2%) had an underlying comorbidity. The median pain score on the VAS reported was 4,79, and the mean BMI was 30,72 kg/m$^2$. Furthermore, as assessed using the KL classification, the majority of patients were categorized as a Grade 2 (64,4%). The average Lequesne index of severity for KOA was 9,8. A range of treatment options was used for KOA, with analgesics being the most frequently employed (83,4%), followed by symptomatic slow-acting drugs for OA (SySADOA), a group of medications that aim to relieve symptoms and potentially modify disease progression over time. These include glucosamine, chondroitin sulfate, and diacerein. Non-steroidal anti-inflammatory drugs (NSAIDs) were the third most commonly reported treatment.

**Table 2** Use of SM as a source of health information according to patients' educational level

| | |
|---|---|
| SM usage among patients with lower education levels (unschooled to middle school) | |
| Yes | 26,5% |
| No | 73,5% |
| SM usage among patients with average or high level of education (high school/university) | |
| Yes | 66,7% |
| No | 33,3% |

### The utilization of SM as a source of health information

One-third of patients used SM to seek information about KOA. Specifically, 26,5% of those with lower education levels (unschooled, primary, or middle school) relied on SM for health information, compared to 66,7% of patients with an average or high level of education (high school/university), as shown in Table 2. Furthermore, as displayed in Fig. 1, the most used platform was YouTube (29,5%), followed by Google (16,5%), Facebook (12,8%) and WhatsApp (10,1%). Whitin the study sample, 16,9% of patients trusted and relied on the information they discovered on SM, with 19,7% having already taken steps and acted on some of this information. A total of 10,7% of patients shared this information with their physicians, and 63,5% expressed interest in having healthcare professionals accessible online to address their queries. The data and corresponding percentages are presented in Table 3.

### Factors associated with SM use for health information

As demonstrated in Table 4 , a statistically substantial link was found in the univariate analysis between age (OR = 0,952 IC 95% [0,921-0,985]; *p* = 0,005), high level of education (OR = 5,500 IC 95% [2,285 – 13,236]; *p* < 0,001), absence of comorbidities (OR = 0,478 IC 95% [0,250-0,916]; *p* = 0,026), disease duration (OR = 1,057 IC 95% [1,005 – 1,241]; *p* = 0,030), PCS (OR = 1,021 IC 95% [1,001–1,041]; *p* = 0,044), TPS (OR = 0,947 IC 95% [0,902-0,993]; *p* = 0,026), and the utilization of SM as a tool for health information gathering. On the other hand, there

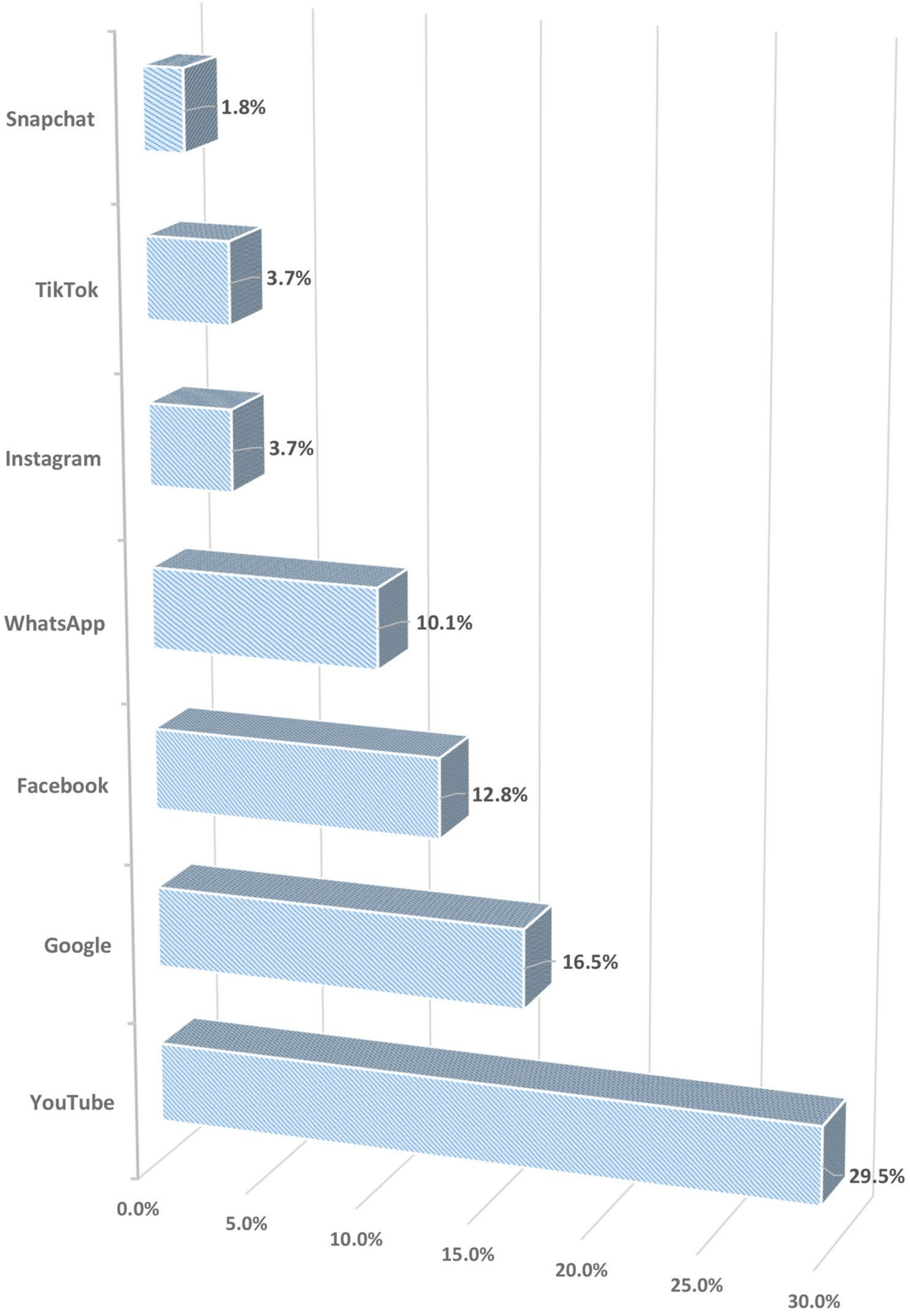

**Fig. 1** Distribution of patients by their use of different SM platforms as a source of health information

was no association found between female gender, pain VAS, Lequesne index, BMQ necessity & concerns, GAD-7, PHQ-9, and the use of SM as a source of health-related information.

Whereas, in the multivariate analysis, only the age (OR = 0,961 IC 95% [0,925-0,998]; $p$ = 0,037), the high level of education (OR = 5,637 IC 95% [1,914 – 16,605]; $p$ = 0,002) and the catastrophic thinking about pain (OR = 1,031 IC 95% [1,006 – 1,056]; $p$ = 0,017), were associated with the using of SM as a health information resource (Table 4).

## Discussion

According to our study, 34,3% of patients with KOA had sought information regarding their condition on SM. YouTube was identified as the most frequently used SM

**Table 3** Insights and beliefs of patients about health-related information collected from SM

| | |
|---|---|
| Do you use SM as a source of health information | |
| Yes | 34,3% |
| No | 65,7% |
| Do you have trust in SM information | |
| Yes | 16,9% |
| No | 83,1% |
| Do you utilize the collected SM information | |
| Yes | 19,7% |
| No | 80,3% |
| Do you share and discuss the gathered information from SM with a doctor | |
| Yes | 10,7% |
| No | 89,3% |
| Would you like healthcare professionals to be present online | |
| Yes | 63,5% |
| No | 36,5% |

platform. The high level of education, the young age and high pain catastrophizing were factors associated with the use of SM as a source of health-related information.

Social networks provide fast access to medical information, but the lack of proper verification makes it susceptible to misinformation [20]. Although KOA is a chronic disease, current therapeutic options lack robust effectiveness. To gain a better understanding of their condition, around one-third of patients with KOA use SM to better understand their condition, similar to Heimel et al.'s findings, where one-third of Chronic Obstructive Pulmonary Disease (COPD) patients used SM to exchange health-related information, especially those in advanced disease stages and with higher education levels [21]. Likewise, 32% of Inflammatory Bowel Disease (IBD) patients used SM for disease management, mainly to connect with organizations, though concerns about privacy and reliability were common [22]. Accordingly, Ünal et al. found that 24.3% of acne vulgaris patients sought health information on SM, with 96.3% searching for acne-related details and 57.1% sharing their findings with doctors [23]. In contrast to our findings regarding SM engagement, while few studies have focused on the musculoskeletal system and no articles have specifically addressed KOA, a previous study by Erdogan et al. explored SM use among patients with various rheumatologic conditions, such as rheumatoid arthritis (25%) and Behcet's syndrome (19%), but did not specifically examine KOA, leaving a gap in understanding its representation. The study found that 77% of patients had access to SM, with many expressing interests in using it for healthcare communication [7]. Additionally, these results were consistent with those reported in another study, which demonstrated that 68.1% of chronic low back pain patients sought information on SM, showing how widely SM is used by patients with chronic conditions, especially those with higher educational levels [24].

Moreover, our study found that patients with higher education levels are more likely to use social networks for health information, due to greater digital literacy. In contrast, those with lower education levels tend to prefer traditional sources. Furthermore, younger patients use SM frequently for its accessibility and visual appeal, while older patients, such as those with KOA, are less likely to engage with SM due to limited digital skills. Similarly, Mouelhi et al. found that younger age, higher income, and the need for esteem support were linked to SM use among renal transplant recipients (RTR) [25]. On the other hand, Erdogan et al. noted in his study that older, less educated patients were less likely to own internet-connected devices, while those with higher education used social platforms like Facebook, Instagram,

**Table 4** Impact of sociodemographic, clinical, and psychological factors on SM utilization for health information among KOA patients: univariate and multivariate analysis

| | **Univariate analysis OR [IC 95%]** | ***p*** | **Multivariate analysis OR [IC 95%]** | ***p*** |
|---|---|---|---|---|
| Age | 0,952 [0,921-0,985] | **0,005** | 0,961 [0,925–0,998] | **0,037** |
| Female gender | 0,444 [0,142-1,387] | 0,163 | - | - |
| High level of education | 5,500 [2,285 – 13,236] | **< 0,001** | 5,637 [1,914 – 16,605] | **0,002** |
| Absence of comorbidities | 0,478 [0,250-0,916] | **0,026** | 0,834 [0,363-1,917] | 0,669 |
| Pain VAS | 1,076 [0,932-1,241] | 0,319 | - | - |
| Disease duration | 1,057 [1,005 – 1,111] | **0,030** | 1,061 [0,996-1,131] | 0,065 |
| Lequesne index | 0,962 [0,885-1,045] | 0,359 | - | - |
| PCS | 1,021 [1,001–1,041] | **0,044** | 1,031 [1,006 – 1,056] | **0,017** |
| TPS | 0,947 [0,902-0,993] | **0,026** | 0,959 [0,907–1,015] | 0,151 |
| BMQ necessity | 1,002 [0,953-1,053] | 0,940 | - | - |
| BMQ concerns | 1,036 [0,979-1,095] | 0,223 | - | - |
| GAD-7 | 1,043 [0,989-1,100] | 0,117 | - | - |
| PHQ-9 | 1,027 [0,968-1,090] | 0,373 | - | - |

High level of education: high school/university; VAS: Visual Analogic Scale; TPS: trust in physician scale; PCS: pain catastrophizing scale; BMQ: belief about medicines questionnaire; PHQ-9: patient health questionnaire; GAD-7: generalized anxiety disorder scale and Twitter more frequently [7]. Beyond that, our study found a positive association between a higher level of catastrophizing and the use of SM among patients with KOA. Studies, including one by Rini et al., indicate that catastrophizing in OA is adjustable, and interventions like web-based pain-coping training can reduce harmful behaviors [26]. In this context, SM platforms could serve as effective tools for delivering structured pain management programs, facilitating peer support, and disseminating educational content to enhance coping strategies. Given that higher education levels are associated with lower pain catastrophizing, leveraging SM to reinforce cognitive behavioral interventions may be particularly effective among educated patients, further strengthening self-management and psychological resilience in KOA patients.

In our study, the SM platform most commonly used by patients suffering from KOA was YouTube (29,5%), after which comes Google (16,5%), Facebook (12,8%), and WhatsApp (10,1%). Accordingly, previous studies have highlighted platform preferences across different patient populations. Ünal et al. found that YouTube (76.4%) and Google (71.2%) were the most used sources for acne-related information, while Twitter (59.5%), Facebook (59%), and Instagram (59%) also played key roles in skincare discussions [23]. Comparably, AlMuammar et al. reported WhatsApp (91.5%) as the most popular platform among patients, followed by YouTube (84.6%) for educational content and Twitter for community support [27]. On the other hand, in scoliosis-related SM use, Truumees et al. identified Facebook as the leading source of medical posts (49.3% from businesses, 28% from doctors), while Instagram (71%) primarily featured patient narratives [28]. These findings are consistent with the results of the study conducted by Erdogan et al., it revealed that patients with rheumatic diseases favored Facebook (71%) and Instagram (62%) over Twitter (20%) and YouTube (11%). These findings highlight a clear preference for Facebook and Instagram among patients, emphasizing the role of SM in improving patient engagement and fostering communication in the management of rheumatic diseases [7]. The differences observed in our study compared to other studies may be attributed to various factors, such as the age and the level of education. Patients with lower levels of education may prefer platforms like YouTube over Facebook and Instagram due to its straightforward and visually engaging format. YouTube offers easily digestible video content that doesn't require strong reading skills, allowing users to access complex health topics through demonstrations, tutorials, or simple explanations that reduces the barriers posed by medical jargon. Unlike Facebook or Instagram, which often rely on written posts and captions, YouTube caters to those who benefit more from audio-visual learning. Additionally, the platform's algorithm often suggests related videos, helping users explore topics without needing advanced digital literacy or extensive searching skills.

According to our research, 16,9% of patients reported that they trusted and depended on information discovered on SM, and 19,7% had already taken specific actions based on what they found. Additionally, around 10.7% of patients shared this information with their doctors, and almost two-thirds of the participants showed a preference for having healthcare professionals available online to address their questions. As a result, SM can harm patient care by spreading misinformation, leading to poor health decisions or delayed treatment. Patients often face unreliable sources or exaggerated claims, causing confusion and eroding trust in healthcare providers. The sheer volume of online health content also makes it difficult to separate credible advice from harmful opinions. In this regard, a study by Elangovan et al. analyzed 200 YouTube videos on spondyloarthritis (SpA) and found that while 60% provided useful information, 11% contained misleading patient opinions, often promoting inaccuracies or unproven treatments. Notably, 82% of misleading content was patient-generated, whereas healthcare professionals shared more reliable information [29]. Similarly, Barahona-Correa et al. found that most videos on systemic lupus erythematosus (SLE) were useful, but misleading ones often from independent users, received higher engagement despite being less reliable and lower in quality. This highlights the need to boost the visibility and appeal of trustworthy, high-quality health information on platforms like YouTube to ensure patients access reliable resources [30]. Furthermore, the challenge of misinformation on SM remains a critical concern, as unverified sources and influencers without medical expertise contribute to the spread of unreliable health content. Ghalavand & Nabiolahi emphasized the role of accuracy, credibility, and clarity in evaluating health information, yet emotional appeal and poor presentation often impact trust [31]. Similarly, Zamora's article highlights the potential of SM as a valuable tool for physicians to educate and empower patients about rheumatologic conditions. However, the article also addresses significant challenges, such as misinformation and misinterpretation of medical content. Zamora advocates for a structured framework to ensure that only qualified individuals share health-related information, promoting transparency, accountability, and accurate knowledge dissemination [32].

Ultimately, to address the negative impact of SM on patient care, it is essential to implement targeted solutions that promote responsible use and accurate information dissemination. Healthcare providers should play a more active role in curating and sharing reliable, evidence-based content on social platforms. Offering training programs for medical professionals on effective online communication can help bridge the gap between patients and trustworthy resources. Additionally, creating partnerships between SM platforms and credible health organizations can help flag or reduce the spread of misinformation. Promoting digital literacy among patients, especially those who are vulnerable to misleading information, is equally critical. Finally, encouraging open and ongoing discussions between patients and their healthcare providers about the information they encounter online can foster trust and ensure better guidance in managing their health.

Our study encountered several limitations that restricted it overall strength, many of which were related to the methodology. For instance, the questionnaire developed for this research was not validated prior to its use. Additionally, the narrow geographic distribution and the inclusion of patients consulting in the rheumatology department limit the generalizability of our findings. This population represents a restricted subset of KOA patients, while a lot of individuals with KOA are managed in primary care settings or other specialties such as orthopaedics or physical therapy. Furthermore, acting as both caregivers and information gatherers might have introduced response bias, particularly regarding questions related to interactions with healthcare professionals on SM platforms.

## Conclusion

In conclusion, our study highlights the role of SM in providing health information to KOA patients, with younger age, higher education, and higher pain catastrophizing influencing its use. Additionally, SM has significant potential in KOA care, but its impact depends on how effectively it is utilized. By engaging healthcare professionals, developing reliable platforms, building support networks, and using digital health tools, we can harness its power to empower patients and improve health outcomes.

### Abbreviations

| | |
|---|---|
| SM | Social media |
| KOA | Knee osteoarthritis |
| OA | Osteoarthritis |
| VAS | Visual analogue scale |
| BMI | Body mass index |
| TPS | Trust in physician scale |
| PCS | Pain catastrophizing scale |
| BMQ | Belief about medicines questionnaire |
| PHQ-9 | Patient health questionnaire |
| GAD-7 | Generalized anxiety disorder scale |
| NSAID | Non-steroidal anti-inflammatory drugs |
| SySADOA | Symptomatic slow-acting drugs for OA |
| KL | Kellgren and Lawrence |
| COPD | Chronic obstructive pulmonary disease |
| IBD | Inflammatory Bowel Disease |
| RTR | Renal transplant recipients |
| SpA | Spondyloarthritis |
| SLE | Systemic lupus erythematosus |

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### Author contributions

A.D. participated in the study design and statistical analysis, and drafted the manuscript. F.Z.T. participated in the study design and statistical analysis, and revised the draft manuscript. F.Z.A. contributed in the study design and data collection. A.A. contributed in the data collection and statistical analysis. N.T. contributed in the data collection and statistical analysis. M.F. participated in the study design and revised the manuscript. F.E.A. elaborated the idea of the study, participated in the study design and revised the draft manuscript. All authors read and approved the final manuscript. All authors take full responsibility for the integrity and accuracy of all aspects of the work.

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### Data availability

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

## Declarations

### Ethics approval and consent to participate

The study was approved by the ethics committee of Tangier's university hospital (number 01/2022). All procedures performed on this study were in accordance with the ethical standards of the Helsinki declaration. Written informed consent was obtained from all subjects prior to the study.

### Consent for publication

Not applicable.

### Competing interests

The authors declare no competing interests.

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