

Research Article

How to Deal IDIOTS (Internet Derived Information Obstructing Syndrome) in Orthopaedic and Spine Practice

Muhammad Zeb Khan^{1*}, Malik Muhammad Yassin Awan², Muhammad Arshad Ghani³, Ghulam Murtaza Khan⁴, Akhtar Zaman⁵, Nazir Ahmed⁶

^{1*}Associate Professor, Department of Orthopaedic & Spine Surgery, Sahara Medical College, Sughra Shafi Medical Complex, The Sahara University Narowal, Pakistan

²Associate Professor, Department of Orthopaedic & Spine Surgery, Sahara Medical College, Sughra Shafi Medical Complex, The Sahara University Narowal, Pakistan

³Assistant Professor, Department of Orthopaedic, Queens Medical College Kasur, Ihsan Mumtaz Teaching Hospital Lahore, Pakistan

⁴Medical Officer, Department of Orthopaedic, KTPH Singapore

⁵Assistant Professor, Department of Orthopaedic, School of Medicine, Dentistry & Allied Sciences, PAF-IAS, Haripur, KPK, Pakistan

⁶Assistant Professor, Department of Neurosurgery, Sahara Medical College, Sughra Shafi Medical Complex, The Sahara University Narowal, Pakistan

Corresponding Author: Muhammad Zeb Khan

Email: surgeonzeb@gmail.com

Received: 21.07.2026, Revised: 23.08.2026, Accepted: 25.08.2026

ABSTRACT

Background: The widespread availability of online health information has transformed patient-physician interactions in orthopaedic and spine practice. Patients increasingly consult search engines, social media platforms, online discussion groups, video-sharing applications, and artificial intelligence (AI) tools before seeking professional advice. Although digital resources can improve health literacy and support shared decision-making, misleading, exaggerated, commercially motivated, or poorly contextualized information may create unrealistic expectations, increase anxiety, undermine clinical recommendations, and delay appropriate treatment. The term Internet-Derived Information Obstructing Syndrome (IDIOTS) is proposed in this article as an informal, non-diagnostic label for these clinical encounters rather than a recognized medical syndrome.

Objective: To assess the prevalence and patterns of internet-derived health information used among orthopaedic and spine patients, explore its perceived influence on treatment decisions and doctor patient communication and identify practical strategies for addressing misinformation in clinical practice.

Methodology: A proposed institution-based, analytical cross-sectional study will be conducted among adult patients attending orthopaedic and spine outpatient services at Sughra Shafi Medical Complex Narowal from January to June 2026 for a period of six months. Consecutive eligible patients will be invited to participate following informed consent. A structured questionnaire will collect demographic information, online health-information-seeking behaviour, perceived reliability of digital sources, disagreement with professional advice, anxiety related to online content, treatment preferences, and willingness to accept evidence-based recommendations. Data will be analyzed using descriptive statistics and appropriate tests of association.

Results: In the illustrative sample of 200 patients, 78.0% reported searching online for health information before consultation, and 51.0% encountered potentially misleading content. Conflicting online information and clinical advice was reported by 43.0%, while 39.0% experienced information-related anxiety. Additionally, 31.0% requested further investigations, 27.0% reported changing treatment preferences, and 16.0% reported delaying recommended treatment. Despite these challenges, 86.0% were willing to verify online information with their clinician.

Conclusion: Internet-derived health information may increase anxiety, create conflicting treatment expectations, and influence clinical decisions in orthopaedic and spine practice. Respectful communication, evidence-based patient education, and shared decision-making can help address these challenges. IDIOTS remains an informal concept requiring further validation.

Keywords: Orthopaedics, Spine Surgery, Health Misinformation, Internet Health Information, Patient Education, Shared Decision-Making, Digital Health Literacy.

INTRODUCTION

The article uses the existing literature on orthopaedic misinformation and spine-surgery information quality to ground the research question. Studies have documented variable accuracy in online orthopaedic content and limitations in web-based spine-surgery education.

Internet access has made medical knowledge more accessible than at any previous time, changing how patients understand symptoms, interpret investigations, and evaluate treatment recommendations. In orthopaedic and spine practice, this transformation is particularly important because musculoskeletal disorders frequently involve persistent pain, uncertainty about prognosis, multiple treatment options, and decisions that may substantially affect mobility and quality of life. Patients with low back pain, cervical radiculopathy, osteoarthritis, disc herniation, scoliosis, and other musculoskeletal conditions may search for explanations before their first consultation and continue searching after receiving a diagnosis. These activities can support informed participation, but their consequences depend on the accuracy, relevance, and interpretation of the information obtained.

The World Health Organization describes an infodemic as an excessive volume of information including false or misleading material, which can create confusion and contribute to harmful health behaviours.

The problem is not internet use itself; rather, it arises when patients cannot reliably distinguish scientific evidence from anecdotal accounts, promotional claims, unsupported treatment promises, or information that is technically correct but inappropriate for their individual circumstances.

The expression Internet-Derived Information Obstructing Syndrome (IDIOTS) is introduced here as a memorable, deliberately informal acronym describing a consultation-level phenomenon. It is not a recognized diagnosis, validated psychological construct, or established clinical syndrome. Its purpose is to draw attention to situations in which online information obstructs communication, increases uncertainty, or complicates evidence-based treatment decisions. The term should never be used to label, ridicule, or stigmatize patients. Clinicians should describe the actual behaviour or concern, for example, conflicting information, treatment-related anxiety, or reliance on an unsupported claim rather than assigning patients a pejorative label.

Orthopaedic misinformation may arise from online videos, search-engine results, influencer recommendations, commercial websites, testimonials, and unmoderated discussion groups. A study examining orthopaedic content on TikTok and Instagram identified concerns about information quality and the limited contribution of physician-created material.

Similarly, research evaluating TikTok content related to spine surgery found substantial variation in the quality of information available to patients.

Such findings support closer examination of digital information in clinical practice, although results from platforms cannot automatically be generalized to every website, patient population, or healthcare setting.

Spine-related decisions are especially vulnerable to misunderstanding because radiological findings, symptoms, functional impairment, and treatment indications do not always correspond in a straightforward manner. Patients may interpret the terms disc bulge, degeneration, stenosis, or nerve compression as evidence of inevitable deterioration. Conversely, online claims that all spinal pain can be cured by exercise, supplements, manipulation, or a particular device may lead patients to underestimate the need for clinical assessment. Individualized decisions require consideration of symptom duration, examination findings, neurological status, functional limitations, relevant investigations, comorbidities, and patient preferences.

The digital environment also creates a mismatch between the way medical evidence is generated and the way information is consumed. Scientific conclusions depend on study design, sample size, limitations, reproducibility, and the balance of benefits and harms. Online content, however, is often encountered through brief videos, emotionally compelling testimonials, simplified explanations, and algorithmically recommended posts. The popularity of a claim can therefore be mistaken for its scientific validity. Commercial interests may further complicate interpretation when content promotes unnecessary investigations, unproven therapies, expensive devices, or surgical procedures without adequately discussing alternatives.

Evidence concerning spine-surgery information supports the need for accessible, trustworthy patient education. A systematic review of digital health resources for patients undergoing spine surgery found shortcomings in the quality and

readability of online educational materials, while identifying potential benefits from structured digital tools.

Research on social media use in spine surgery has also highlighted concerns about reliability, professional conduct, privacy, and the risks of presenting individualized medical advice in public forums.

These findings suggest that healthcare professionals should not respond to digital misinformation by simply dismissing online information. Instead, they should help patients evaluate it critically and provide credible alternatives.

Another important mechanism is health-related anxiety arising from repeated online searching. Searching for symptoms can expose individuals to alarming possibilities, including rare diseases, severe neurological complications, or worst-case surgical outcomes. Repeated searching may temporarily reassure a patient but subsequently generate further questions and uncertainty. Nevertheless, internet searching alone does not establish cyberchondria or a mental health disorder. Clinicians should assess the patient's actual distress, functional impact, and information needs without assuming that frequent searching is inherently pathological.

The emergence of generative AI adds another dimension. AI systems can produce fluent, authoritative-sounding explanations that may omit important clinical qualifications, present outdated information, or generate inaccurate statements. Patients may also use AI-generated interpretations of imaging reports to make decisions without professional assessment. These systems can support general education, but their outputs should not replace clinical examination, radiological interpretation by qualified professionals, or individualized risk-benefit discussions. Patients should be encouraged to verify consequential claims with their treatment of clinicians and reliable professional resources.

Despite increasing attention to online health information, there remains a need to examine how patients experience these issues during routine orthopaedic and spine consultations in diverse clinical settings. Evidence from international social media studies does not necessarily explain the experiences of patients attending at Sughra Shafi Medical Complex, where access to digital information, language preferences, health literacy, financial considerations, and expectations of specialist care may differ. The present study is therefore

designed to assess online information-seeking behaviour, perceived misinformation, consultation difficulties, and treatment-related decision-making in these settings. It also seeks to identify practical strategies that clinicians can use to preserve trust, strengthen health literacy, and promote shared decision-making without blaming patients for seeking information.

METHODOLOGY

Study Design and Setting: An institution-based, analytical cross-sectional study is proposed Sughra Shafi Medical Complex Narowal.

Study Population and Sampling: Adult patients aged 18 years or older attending orthopaedic and spine outpatient clinics will be eligible. Consecutive sampling may be used to recruit patients who provide informed consent. Patients unable to provide informed responses may be excluded according to prespecified criteria. The sample size should be calculated before recruitment using an appropriate prevalence estimate, confidence level, precision, and allowance for non-response. Recruitment targets and sample sizes achieved should be reported separately for each site.

Data Collection: A structured questionnaire will capture age, sex, education, presenting complaint, internet-use frequency, digital information sources, perceived credibility, exposure to conflicting claims, anxiety, disagreement with clinical advice, treatment preferences, and willingness to discuss online findings with clinicians. Questions should be reviewed by clinical and research experts and pilot tested for clarity

Statistical Analysis: Categorical variables will be summarized as frequencies and percentages, while continuous variables will be summarized using means and standard deviations or medians and interquartile ranges, as appropriate. Associations between online information-seeking behaviour and prespecified outcomes may be assessed using chi-square or Fisher's exact tests and suitable regression models. Effect estimates with 95% confidence intervals should be reported where applicable. Statistical significance should be interpreted alongside effect size, uncertainty, and clinical relevance.

Ethical Considerations: Approval from the responsible institutional research ethics committee and informed consent are required before data collection. Participation should be voluntary, confidentiality maintained, and

responses kept separate from clinical decisions. The ethics approval reference, consent procedures, funding, and conflicts of interest must be reported accurately.

RESULTS

Table 1 describes the demographic characteristics, clinical presentations, and online health-information-seeking behaviour of two hundred illustrative participants from the Sughra Shafi Medical Complex. The largest age group was 31–45 years (41.0%), and males constituted 59.0% of the sample. Regarding education, 48.0% had intermediate or graduate-level education, while 28.0% had postgraduate qualifications. Orthopaedic complaints accounted for 56.0% of

participants, and spine-related complaints accounted for 44.0%.

Online health-information seeking was reported by 78.0% of participants, indicating that internet searches may be a common part of the patient journey. Search engines were the most frequently reported source (56.0%), followed by social media (42.0%), online videos (36.0%), and AI-based tools (19.0%). Furthermore, 51.0% reported encountering potentially misleading information, whereas 32.0% expressed high trust in online information. These findings highlight the importance of digital health literacy and helping patients distinguish credible medical guidance from inaccurate or misleading content.

Variable	Category	Frequency, n (%)
Age	18–30 years	54 (27.0%)
	31–45 years	82 (41.0%)
	46–60 years	46 (23.0%)
	Above 60 years	18 (9.0%)
Sex	Male	118 (59.0%)
	Female	82 (41.0%)
Educational attainment	Secondary or below	48 (24.0%)
	Intermediate/graduate	96 (48.0%)
	Postgraduate	56 (28.0%)
Clinical presentation	Predominantly orthopaedic complaints	112 (56.0%)
	Predominantly spine-related complaints	88 (44.0%)
Online health-information use	Searched online before consultation	156 (78.0%)
	Did not search online	44 (22.0%)
Main information source*	Search engines	112 (56.0%)
	Social media platforms	84 (42.0%)
	Online videos	72 (36.0%)
	AI-based tools	38 (19.0%)
Perceived credibility	Reported high trust in online information	64 (32.0%)
Potential misinformation	Reported encountering potentially misleading information	102 (51.0%)

Table 1. Demographic characteristics and internet-derived health-information-seeking behaviour total sample (N=200)

Table 2 illustrates the potential influence of online health information on patient anxiety, communication with clinicians, and treatment decisions. Conflicting information between online sources and professional advice was reported by 43.0% of participants, while 39.0% experienced anxiety related to online content. Additionally, 31.0% requested further investigations after online searching, and 27.0% reported changing their treatment preferences. Treatment delays attributed by

participants to online information were reported by 16.0%.

Despite these challenges, 59.0% discussed online findings with their treating clinician, and 86.0% were willing to verify online claims with a clinician. This willingness represents an opportunity to improve communication through non-judgmental counselling, evidence-based explanations, and reliable patient-education resources. Overall, the table illustrates the potential for internet-derived information to complicate clinical decision-making while also

providing opportunities to strengthen shared decision-making and patient understanding.

Outcome	Frequency, n (%)
Reported conflict between online information and clinical advice	86 (43.0%)
Experienced anxiety related to online health information	78 (39.0%)
Requested additional imaging or investigations after online searching	62 (31.0%)
Reported changing treatment preferences after online searching	54 (27.0%)
Reported delaying recommended treatment because of online information	32 (16.0%)
Discussed online findings with the treating clinician	118 (59.0%)
Willing to verify online claims with a clinician	172 (86.0%)

Table 2. Reported effects of internet-derived information on consultations and treatment decision

DISCUSSION

The present study explores the influence of internet-derived health information on patient perceptions, clinical consultations, and treatment decisions in orthopaedic and spine practice at Sughra Shafi Medical Complex. In the illustrative sample of 200 participants, 78.0% reported searching online for health information before consultation, while 51.0% encountered potentially misleading information. Furthermore, 43.0% reported conflict between online information and professional advice, and 39.0% experienced anxiety associated with online content. These findings highlight the potential importance of digital health literacy in contemporary orthopaedic practice; however, the figures require confirmation using actual study data.

The high prevalence of online information seeking suggests that digital platforms have become an important source of preliminary health information. Patients frequently search for explanations of musculoskeletal pain, spinal disorders, radiological findings, and available treatment options. Although this behaviour can promote patient engagement and informed decision-making, generalized online information may not reflect individual clinical circumstances. Previous research examining orthopaedic and spine-related social media content has identified concerns regarding information quality, reliability, and readability. Such findings support the need for accessible, evidence-based patient education.

The reported exposure to potentially misleading information may contribute to unrealistic expectations regarding investigations, conservative treatment, and surgery. For example, patients may interpret degenerative spinal changes as requiring immediate surgery or believe that unproven therapies can permanently reverse structural abnormalities. Nevertheless, perceived misinformation should be distinguished from objectively verified

inaccurate content. Disagreement between patients and clinicians does not automatically indicate misinformation, as patients have the right to question recommendations and seek second opinions.

In the illustrative results, 31.0% of participants requested additional investigations, 27.0% reported changing treatment preferences, and 16.0% reported delaying recommended treatment following online searching. These outcomes suggest implications for clinical decision-making and patient safety. Unnecessary investigations may increase costs and anxiety, while delays in appropriate assessment can be concerning patients with progressive neurological symptoms. However, a cross-sectional design cannot establish that internet-derived information directly caused these behaviours.

Despite these challenges, 59.0% of participants discussed online findings with their clinicians, and 86.0% expressed willingness to verify online claims with a healthcare professional. These findings suggest an opportunity to strengthen communication through non-judgmental counselling, shared decision-making, and reliable educational resources. Clinicians should ask patients about their online sources, address specific concerns, explain the evidence supporting recommendations, and clarify treatment benefits, risks, and uncertainties. Institutions may also develop accessible educational materials in appropriate languages and encourage critical appraisal of social media and artificial intelligence-generated health information.

The term Internet-Derived Information Obstructing Syndrome (IDIOTS) is proposed as an informal description of consultation difficulties rather than a recognized medical diagnosis. It should not be used to stigmatize patients who seek information online. The emphasis should remain on improving

information quality, communication, and clinical understanding.

This study concept has important limitations. The numerical findings presented are illustrative rather than verified observations, and actual results must be established before publication. Future research should use validated questionnaires and prospective or interventional designs to determine whether structured digital health-literacy interventions improve patient understanding, trust, treatment adherence, and clinical outcomes. Overall, a respectful, evidence-based approach may help clinicians address misinformation while preserving patient autonomy and promoting effective orthopaedic and spine care.

CONCLUSION

Internet-derived health information presents both opportunities and challenges in orthopaedic and spine practice. Patients can use digital resources to improve their understanding of symptoms and treatment options; however, inaccurate or poorly interpreted information may contribute to anxiety, conflicting treatment expectations, unnecessary investigation requests, and delays in appropriate care. Recent research has identified concerns about the quality of orthopaedic and spine-related content on social media, reinforcing the importance of accessible, evidence-based patient education.

The proposed concept of Internet-Derived Information Obstructing Syndrome (IDIOTS) provides an informal framework for discussing these consultation challenges, but it is not a recognized or validated medical diagnosis. Clinicians should respond through respectful communication, critical appraisal of online claims, and shared decision-making rather than blaming patients for seeking information. Institutional educational resources and responsible use of digital technologies may help improve patient understanding and trust.

Implications

1. Clinical practice: Orthopaedic and spine clinicians should routinely invite patients to discuss online information and clarify misconceptions through individualized explanations.
2. Patient education: Institutions should develop accessible, evidence-based resources addressing common musculoskeletal conditions, diagnostic investigations, conservative treatment, surgical indications, risks, and rehabilitation.

3. Digital health literacy: Patients should be encouraged to evaluate the credibility, authorship, evidence, publication date, and commercial interests of online health content.
4. Institutional policy: The participating institutions could introduce clinician-reviewed digital education materials and standard procedures for addressing conflicting online information.
5. Artificial intelligence: AI-generated health information should be treated as a supplementary educational resource rather than a replacement for professional assessment. Recent spine-related research highlights the importance of evaluating the accuracy and limitations of AI-generated advice.
6. Research and quality improvement: Verified study findings could inform future interventions and audits examining patient understanding, consultation quality, treatment adherence, and appropriate use of investigations.

Recommendations

- Introduce a brief screening question during orthopaedic and spine consultations: "Have you searched online or used an AI tool to learn about your condition or treatment?"
- Encourage patients to share online claims without fear of criticism or embarrassment.
- Provide institution-approved educational materials in locally appropriate languages and at accessible reading levels.
- Train clinicians in risk communication, shared decision-making, and identifying potentially misleading health claims.
- Develop a structured patient-education pathway for common spinal disorders, including disc herniation, degenerative changes, radiculopathy, and indications for surgery.
- Conduct a pilot study to validate the questionnaire before reporting prevalence estimates or associations.
- Undertake prospective studies to determine whether clinician-led digital education reduces anxiety, improves understanding, and supports appropriate treatment decisions.

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