What Do Amputees want to know as they consider Osseointegration?

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Abstract

Osseointegration (OI) is a surgical procedure consisting of a direct structural and functional connection between living bone and a titanium implant, presenting as an alternative to traditional prosthetic sockets. OI was originally developed within the context of dental applications and has been a successful alternative for those that face limitations with a socket prosthesis as it offers improved bone density, mobility, comfort and increased Osseo perception for individuals with limb loss. Despite its clinical benefits, OI remains relatively inaccessible in Canada due to its strict criterion for getting the procedure, along with limited availability and significant post-operative risks such as infections and skin complications. Moreover, prospective OI candidates continue to face a notable lack of standardized, accessible patient education and decision-making resources for the procedure. This research will help to support the development of a patient-centered decision support tool from the Amputee Coalition of Canada, to help address these informational gaps. By incorporating significant insights from social media discourse, more specifically Facebook Osseointegration groups, and structured qualitative interviews of those considering the procedure, this project aims to enhance informed decision-making, improve patient outcomes, and contribute to more equitable access to OI-related care and support within the limb loss community.

Literature Review

Osseointegration (OI), is a procedure that involves creating a “functional connection between ordered, living bone and the surface of a load-carrying implant”, as said by Per-Ingvar Branemark, a professor at the Institute of Applied Biotechnology at the University of Goteborg, who introduced the procedure (Jayesh & Dhinakarsamy, 2015). The concept of OI was developed from initial studies on the microscopic bone marrow of a rabbit fibula. Upon visual investigation, a surgical technique was performed to study the marrow further, by grounding down the bone to a thickness of 10-20 micrometres. The procedure ensured circulation was maintained along with minimal microvascular damage to understand how its circulation functioned. This helped advance the understanding of the circulatory connections that exist within the marrow, bone and the joint (Jayesh & Dhinakarsamy, 2015). Branemark then performed further studies on both bone marrow and joint tissue *in vivo* to investigate reactions of tissue to different kinds of injuries; “mechanical, thermal, chemical and rheologic” (Jayesh & Dhinakarsamy, 2015). The observation of how titanium incorporates into bone tissue led to the creation of OI, revolutionizing prostheses in the early 1960s (Jayesh & Dhinakarsamy, 2015).

The metal integrated to the bone is titanium, utilized so the bone can become permanently fused with the layer of titanium oxide, and cannot be separated unless the bone is fractured (Mavrogenis et al, 2009). From a long-term perspective, this was initially investigated in individuals requiring dental prostheses where titanium screws and the bone were integrated (Mavrogenis et al, 2009). During development, dentists recognized that for implants to be effective in the long-term, there needs to be a “biological seal” that exists between the implant and the tissue (Jayesh & Dhinakarsamy, 2015). The ‘seal’ essentially acts as a barrier to oral toxins and bacteria that could sit between the implant and the tissue which can cause issues in the long-term (Jayesh

& Dhinakarsamy, 2015). Hence, a biological seal acts as a critical factor in the longevity of implants to prevent further cell injury and inflammation which could progress bone degeneration and hence compromise the use of a new restorative device post-damage (Jayesh & Dhinakarsamy, 2015).

OI is a surgery that is increasingly available in Canada with centres in Montreal, Edmonton and most recently, Ottawa. OI was first performed in Canada (Montreal) in the Spring of 2018. As of today, multiple Canadian amputees have little to no access to OI in Canada and are hence required to travel across Canada or abroad to receive the surgery and then return to home for post-operative care (Orthotics Prosthetics Canada, 2018).

Currently, many limitations exist with receiving a prosthetic socket, adding a "man made extension of their body" (Orthotics Prosthetics Canada, 2018). This includes the added discomfort and issues when fitting the socket which directly impacts mobility and therefore, the quality of life for the amputee, hence leaning to the use of Interestingly, the benefits of OI highly outweigh the benefits of a prosthetic socket, and a few of the benefits highlighted according to the Orthotics Prosthetics Canada document are improved "bone density, hip range of motion, sitting comfort, Osseo perception, feedback from the terrain they walk on, and body image" (Orthotics Prosthetics Canada, 2018). One major drawback of receiving OI is the risk of infection and further skin complications (Orthotics Prosthetics Canada, 2018).

Due to the benefits and drawbacks that exist with receiving a life changing procedure such as OI, there is a need for "team-based care" for individuals considering OI or those who have had the procedure done to ensure that such individuals receive full support as post-operative care to minimize the risks involved with being Osseo integrated. To achieve full support, amputees should request for support from multiple medical professionals as well as strictly follow an "individualized rehabilitation protocol" consisting of ongoing support from a certified prosthetist and a physiotherapist (Orthotics Prosthetics Canada, 2018). Additionally, the individual should also be monitored by nursing staff to reduce risks of infection post-surgery (Orthotics Prosthetics Canada, 2018).

The decision to have osseointegration done is a major one and considering the risks involved and with the procedure being relatively new, there is currently very little standard information available for amputees to use in making their decision, and there is little to no patient decision support tools, hence makes the creation of an accessible decision support tool is the goal of our project. Decision support tools are useful to provide "patient-specific assessments that support clinical decisions, improve prescribing practices, reduce medication errors, improve the delivery of primary as well as secondary prevention and improve adherence to standards of care (Graham et al, 2018). This is important as it helps to educate amputees on their options and understand opinions of individuals on a similar journey if they were to consider osseointegration. Furthermore, implementing a decision support tool also helps OI patients ensure that they choose their decision with the knowledge that there is a plethora of resources available to them as well as a community to rely on. It also helps to enhance healthcare delivery and offer advice tailored to specific questions that future OI patients might have (Graham et al, 2018). The principles to develop an effective decision support tool relevant to OI would include engaging with the tool's target users, to develop an understanding of use of the tool, as well as to plan the tool for a long period of time (US Geological Survey, 2023). By ensuring effective use of such principles, individuals considering OI would be in a much better position to make their decision without any gaps in their knowledge and enhance the lives of amputees with a greater impact.

The purpose of this paper is to create awareness of OI and to inform individuals considering OI of the risks, drawbacks and resources available to those needing additional support to their life post procedure. The development of a decision support tool is led by the host organization *Amputee Coalition of Canada* (ACC), a non-profit organization that works to empower the limb loss community in Canada by providing appropriate resources and education. The ACC aims to advance the quality of life of amputees by providing coping techniques as well as additional skills and structured programs to help them feel connected with their community and keep amputees active and engaged in their community. Hence, the project with the ACC will involve laying the groundwork needed to create a decision support tool for amputated individuals considering OI. To advance the research needed to create the decision support tool, there would be active research of information on Facebook sites about OI to determine the types of questions being asked by persons considering osseointegration and how individuals who have had the procedure share their experiences of making the decision. A small group of individuals seeking OI will be interviewed to further explore the information they need/want to make the decision.

By having a better sense of the kinds of questions amputees are asking about OI, we can drive the decision-making process for such individuals more efficiently through the development of a decision-making tool. In the long term, the data collected helps with the sharing of reliable information regarding OI therefore advancing the knowledge of a larger collective population of amputated individuals.

Research Methods

This research employed a qualitative research design incorporating data collection from Facebook Osseointegration groups, structured interviews, and a Qualtrics survey to understand the informational needs and decision-making experiences of individuals considering OI.

- **Data Collection from Facebook Groups**

  Data were gathered from four Facebook groups focused on Osseointegration and general amputee support: *Canadian Osseointegration Amputees, Osseointegration Group of Canada*, *Osseointegration Facts & Info,* and *Osseointegration Peer Support Group*. The four groups provided a rich source of organically generated discussions from both current and prospective OI patients. A total of 41 responses were viewed and analyzed from the Facebook groups. Posts and conversations relevant to OI were extracted and reviewed to identify recurring concerns, questions and topics of interest relevant to the decision-making process surrounding OI.

- **Surveys**

  An online survey was developed using the Qualtrics platform to collect data on the experiences, concerns and informational needs of individuals considering Osseointegration. A post was shared across the selected Facebook groups, which outlined the research objectives and invited participation. The Qualtrics link was attached to the post, and individuals who expressed interest were directly transferred to the survey which included a detailed review of the research goals and the consent form to participate. Individuals were not allowed to go further in the survey if the consent form was completed improperly, and this ensured ethical standards were met. The post remained active in the Facebook groups for a period of three months. A total of nine full survey responses were received and analyzed. These responses provided insights into the types of information participants were seeking, the resources they accessed, and the barriers encountered in making the decision to have OI done.

- **Interviews**

  Structured one-on-one interviews were conducted via Zoom to gain a deeper qualitative insight. Similar to the survey, a post was created in each of the Facebook groups providing the objectives of the research and inviting individuals to participate. Those who volunteered to participate reached out to the researcher via email. A consent form was then emailed to them, and an interview was scheduled. Two individuals participated in the interviews, and their responses provided a great insight into their personal journeys, including their motivations, concerns and gaps in knowledge or support related to OI.

- **Qualitative Analysis of the Data**

  The collected data which included Facebook group discussions, survey responses, and interview transcripts, were subjected to qualitative analysis after the three-month period. The analysis involved identifying and coding recurring themes, questions and decision-making patterns. It further aimed to uncover common informational gaps and needs of the amputees, ultimately informing the development of a patient-centered decision support tool for individuals considering Osseointegration.

Results

Table 1. *A summary of key themes from Facebook group discussions, interviews, and surveys.*

Frequently Discussed Themes	Facebook Data	Interview Data	Survey Data
Access & Availability	✓		
Risks & Reversibility	✓		
Lifestyle Impact	✓		
Insurance Approvals	✓		
Success Stories	✓		
Infection Management	✓		
Challenges with Socket Prosthetic	✓	✓	
Mixed Outcomes & Uncertainty	✓	✓	
Positive Interactions	✓	✓	
Independent Research	✓	✓	
Peer Support and Information Seeking	✓	✓	✓
Barriers to Access	✓		✓
Social Stigma & Cost	✓		✓
Candidacy & Physical Requirements	✓		
Post Surgical Guidelines & Recovery Guidelines	✓		

Table 1 presents a summary of frequently discussed themes collected from Facebook group data, interviews, and surveys to investigate amputees' concerns about OI. A checkmark indicates that the theme was present in the corresponding set of data. The table is an illustration of concerns faced by individuals considering OI. They highlight overlapping and distinct areas of concern, interest, and support needs among individuals considering OI.

Key Findings from Facebook Group Data, Surveys, and Interviews

➢ **Facebook Group Data**

An extensive analysis of 41 user comments from each of the Facebook groups revealed a great depth of community knowledge, support, and concern regarding OI. The themes below reflect the most frequently discussed issues.

1. **Access and availability**

   Access to OI remains one of the most cited challenges. Users in various regions such as Alaska, British Columbia and New Zealand continue experiencing difficulties in finding a qualified surgeon or accessing care without extensive travel. Multiple comments highlight systemic delays in hiring surgeons within Canada and experiencing bureaucratic barriers within provincial healthcare systems. Some users provided positive news such as having the new procedures being covered under Quebec's Medicare system, and Ontario expanding its funding for femoral OI, but others express frustration over the slow progress in other regions. Moreover, bilateral amputees and those with short residual limbs still experience additional barriers due to the complexity of their cases.

2. **Risks and reversibility**

   Facebook group members often expressed concern about potential complications and the possibility of reversibility of OI. Several users shared personal experiences of infections leading to the removal of their OI implant and reversion to socket-based prostheses. Others inquired about long-term risks such as breakage of the implant, dual cone failure, and the dangers posed by any impact on the affected limb. Another recurring issue was the lack of open discourse in negative experiences. Hence, individuals called for a more balanced conversation that includes drawbacks – not just success stories – so future patients are able to make fully informed decisions.

3. **Impacts on lifestyle**

   Users reported freedom from socket pain and increased activity levels after OI, such as returning to horse riding or gym routines after years of physical therapy. However, individuals did report irritation of the stoma and sought guidance on how to manage their irritation during activities such as walking or playing golf. Moreover, protective coverings for swimming and other adaptations were shared, where some users experimented with custom-made stoma covers to improve their quality of life. Individuals also discussed physical limitations, such as the inability to lift heavy weights or discomfort during colder seasons, raising questions about adaptability in different environments.

4. **Insurance & Approval**

   Navigating insurance and approval remains a complex and often frustrating aspect of pursuing OI. Individuals report timelines for receiving insurance coverage for surgeries and the use of diagnostic imaging such as PET scans, where some required exemption paperwork or compassionate-use requests. One individual reported being denied approval, only to find out it had already been granted – highlighting miscommunication within the system. On all platforms, there is a pressing need for clear, concise information about the funding process and requirements, particularly for individuals who must pay out of pocket or are thinking about crowdfunding because of provincial rejections.

5. **Success stories**

   Powerful success stories were shared by many people, commemorating achievements that had previously seemed unreachable. These included becoming independent again, participating in sports that they previously could not do, or even walking pain-free and with no assistance. These stories demonstrate that OI can result in significant improvements in quality of life, which is a strong incentive for anyone who is thinking about having the surgery done.

6. **Infection management**

   Both during the healing process and in the long run, infection is still a major risk. Posts varied from minor stoma site edema and irritation to severe infections that necessitated hospitalization and IV antibiotics. Several users underlined the significance of early symptom detection, routine stoma care, and the participation of infectious disease specialists. Although users' experiences differed, the existence of infection was a common theme that influenced their choices and the results of their surgeries.

7. **Challenges with a Socket Prosthetic**

   Many people felt that socket-based prosthetics were restricting and uncomfortable, especially for people who had phantom pain, stump sensitivity, or frequent weight fluctuations. Many customers reported that their primary reason for initially investigating OI was their frustration with poorly fitting sockets. However, several people who had to switch back to sockets after OI because of difficulties said they felt defeated, indicating that improved pre-surgery education and preparation were needed.

8. **Mixed Outcomes & Uncertainty**

   Many users, particularly those awaiting surgery or just recovering from surgery, expressed both excitement and anxiety. They frequently inquired about recuperation, weight-bearing, and unaided walking schedules. Some emphasized how emotionally taxing it is to cope with setbacks like unexpected discomfort after an implant or technical problems. The range of results and the psychological toll of seeking an unconventional or experimental medical cure are reflected in their stories.

9. **Positive Interactions**

   Posts demonstrated the tremendous benefits of peer support. The online community became an essential source of both practical and emotional support, with members sharing prosthesis hacks and recovery advice and experienced OI recipients consoling new applicants. These exchanges frequently had quantifiable effects, assisting others in planning ahead and making informed decisions. Additionally, there is support seen from informed and engaged healthcare professionals, leading to positive experiences with consultations. Individuals credited their surgeons and clinical teams with making them feel safe, well-prepared and cared for.

10. **Independent research**

    Multiple users demonstrated a lot of initiative in researching the procedure, including reaching out to multiple clinics internationally, consulting academic studies on OI, and engaging in conversations with past patients. This preparation was particularly common in those with complex medical histories or unique limb configurations.

11. **Peer Support & Information Seeking**

    Facebook groups continued to act as a knowledge hub where individuals could ask questions about everything, from surgery timelines to the durability of prosthetic components. However, some express concern about the availability of too many stories of positive outcomes as opposed to negative experiences, calling for the sharing of more ‘neutral’ experiences overtime. Hence, with such information readily available online, many users report feeling underinformed when making decisions about OI. Several asked basic questions about recovery timelines, surgical options or expected complications, suggesting a gap in standardized information materials for those considering OI.

12. **Barriers to access**

    The key barriers commonly faced by those considering OI were geographical, financial, bureaucratic and institutional. Several users were deemed ineligible due to factors such as smoking status, co-existing medical conditions, or age. Individuals were also told to complete limb lengthening procedures before being considered for OI. Hence, we see a great deal of complexity in OI candidacy and the need for more clearer, inclusive guidelines.

13. **Social stigma and cost**

    Individuals also reflect on the emotional and social aspects of seeking surgery abroad or having to crowdfund for a procedure as they cannot afford it themselves or believe that it should be publicly funded. Individuals also express shame or frustration in their health not being prioritized due to factors such as cost or delays from increased bureaucracy.

14. **Candidacy and physical requirements**

    There is still increased uncertainty about what constitutes a good candidate for OI. Many shared concerns with age, where older individuals aged 50 to 60 years questioned whether they could be eligible. Additionally, questions about residual limb length, comorbidities or prior surgical history were also of concern. Most individuals are looking for insights from patients of similar backgrounds to them to help identify if they are a potential candidate.

15. **Post-surgical guidance and recovery timelines**

    This is a newer area of concern which involves the lack of standardized information on post-surgical milestones. Individuals question specific questions about when exactly they could begin weight-bearing, walk unassisted, or even return to full activity. There are a wide range of answers which revealed inconsistent recovery experiences and a need for more clear rehabilitation protocols.

- **Survey Data**

The informational requirements, attitudes, and support networks of amputees contemplating osseointegration (OI) were investigated through a qualitative survey using Qualtrics. Nine complete answers in all were obtained and examined. The information shows a variety of opinions regarding OI, emphasizing the elements that motivate people to have the treatment done as well as the obstacles that prevent them from making a decision.

Numerous participants expressed that they felt insufficiently educated to make an informed choice regarding osseointegration. The most often mentioned gaps among individuals who reported inadequate information included the procedure's long-term effects and the probability and severity of infection. These people indicated that patient communities and healthcare professionals needed to provide more easily available and comprehensive information.

The majority of responders said they knew someone who had had osseointegration. Although at least one respondent had a mixed outcome, the majority characterized these experiences as favourable. Participants' opinions seemed to be influenced by the firsthand accounts of known OI recipients, which offered concrete insights into the procedure's advantages and difficulties.

For several of the responders, online peer support groups proved to be a useful knowledge source. Participants who felt well-informed frequently gave credit to internet forums for offering useful and honest information that isn't accessible through conventional clinical channels.

One participant, however, voiced discontent with online platforms, saying they did not feel informed or supported by them. This implies that although internet forums might promote the exchange of knowledge, the quality of support can differ greatly.

Overall, the support from medical personnel was generally positive. Most participants said that their medical teams supported their interest in osseointegration. However, a few pointed out that the level of support was limited; one responder mentioned that there were no choices for holistic treatment or follow-up care. This draws attention to a larger issue about the continuity of care after the surgery.

Responses differed when asked whether they had any reasons why they might not pursue OI. While some respondents expressed no worries, others brought out possible issues, inadequate post-operative care, and the absence of integrated aftercare initiatives. One respondent highlighted that a major obstacle is the lack of a holistic care model, arguing that social and emotional healing should be considered in addition to physical recovery.

Mixed opinions existed over access to OI-related resources. Systemic or financial constraints hindered their capacity to pursue the process, according to some respondents, while others felt they had sufficient access to the information and resources they required. In the context of the Canadian healthcare system, these answers highlight wider inequalities in access to cutting-edge prosthetic care.

The survey's overall findings highlight the need for better instructional materials, more reliable medical assistance, and a more all-encompassing approach to patient care. To close current gaps and better empower amputees to make educated decisions regarding osseointegration, these findings lend support to the creation of a patient-centred decision support tool.

- **Interview Data**

Two semi-structured interviews with male amputees, ages 65 and 72, were carried out to obtain a better understanding of the lived experiences of those who are thinking about OI. The subjects, who had lost both upper and lower limbs due to infection and trauma, provided in-depth insights on their post-operative experiences, knowledge sources, motives, and medical support. Their responses help to further understand the personal, clinical and systemic factors that influence decision-making when considering OI.

Both interviewees identify significant dissatisfaction with their socket-based prostheses as a central motivation for considering OI. They reported pain, discomfort during movement, poor fit, and a lack of functionality as their major limitations of the socket-based prosthesis. Interviewee #1, a right above-knee amputee, emphasized the frustration of sockets falling off and causing pain, while interviewee #2 explicitly framed OI as a pathway to reclaiming his freedom again.

Moreover, both participants undertook extensive information seeking before committing to the procedure. Interviewee #1 mentioned consulting peer-reviewed studies, patient communities and attending the Amputee Coalition Annual Meeting. Despite his efforts the information he gained was polarized and presented either overwhelmingly positive outcomes or severe complications. By not being able to find statistically reliable data, he independently estimated a 90% probability of success for himself and decided that this was an acceptable risk. In contrast, interviewee #2 relied more heavily on consultation with physicians and conversations with their peers at surgical centres. He acknowledged hearing mixed experiences from other patients and stressed that the potential benefits far outweighed the risks, and no one can know the true outcome without trying.

Regarding healthcare support, both interviewees reported generally positive experiences. Interviewee #1 had access to the Johns Hopkins OI team and consulted with a leading expert in the field. The level of access received provided the interviewee with confidence in the medical advice received. Interviewee #2 also reported support from health care professionals and specified that their doctors worked directly with insurers to help streamline the approval process. However, both participants noted some limitations in access to post-operative care. Interviewee #1 expressed concern over the geographic inaccessibility of specialized OI rehabilitation services. Though he was able to work with a prosthetist, his physical therapist required further training to handle OI recovery. Interviewee #2 described a recovery process that involved multiple weeks of rehabilitation. While his care was effective, he acknowledged that recovery times and pain management can vary significantly between individuals.

Moreover, social support from online platforms such as Facebook groups was another theme explored in the interviews. Interviewee #1 valued the opportunity to have access to real experiences through Facebook and described the information as helpful and informative in helping them make a decision. Interviewee #2 shared a more ambivalent view and stated that while online communities do provide useful information, he preferred to rely on medical staff for more trustworthy guidance. Despite recognizing their usefulness for others, he reported limited engagement in the online discussions.

The two participants were also happy with their decision to undergo OI and did not express serious doubts or concerns. Interviewee #1 specified that if he learns that the chance of success is below 80%, it could have hindered his decision to move forward, but his personal assessment of a 90% success rate was sufficient to proceed with the decision to undergo OI. Interviewee #2 also stated that once his decision was made, he had no intention to go back, given the physical and emotional improvements he was able to experience post-surgery.

Overall, the interviews revealed OI to be a life-enhancing alternative to traditional socket prostheses. However, they also draw attention to the persistent knowledge gaps in localized post-surgical support, consistent public information, and statistical outcome statistics. These results underline the need for a standardized, empirically supported patient support tool that incorporates lived experiences and professional knowledge, enabling amputees to make knowledgeable, self-assured decisions regarding their care.

Discussion

This research has effectively investigated a central and pressing question: *What do amputees want to know as they consider Osseointegration (OI)?* Using a qualitative approach – consisting of Facebook group data, survey responses, and one-on-one interviews, this research has uncovered a wide spectrum of informational needs, emotional experiences, and the systemic barriers that exist when navigating the decision to undergo OI. The findings reinforce existing literatures on patient uncertainty surrounding OI, the limits of patient education and the potential that peer support and shared experiences provide.

Across all data sources, the need for easily available, fair, and thorough information is one of the most obvious conclusions. Anecdotal success stories, peer forums, and personal research were the main sources of information for many people. However, the information available to those considering OI were typically restricted to extremely positive outcomes or rare, catastrophic outcomes—creating a perception of the risk that exists. For instance, interviewee #1 mentions that a centralized source providing statistical data on success rates, problems, and reasonable expectations does not exist. With OI being an invasive and life-altering treatment, the lack of evidence-based guidelines is concerning.

Furthermore, the findings show a persistent concern with clinical and practical obstacles, including insurance coverage, post-operative care accessibility, and access to skilled doctors. These problems were particularly noticeable in rural and remote areas, where it is frequently necessary to go to specialized centres. Furthermore, a number of participants—especially those from Canada—described varying provincial policies and bureaucratic delays, underscoring the ways in which fragmented healthcare systems make obtaining OI more challenging.

Concerns about hazards, reversibility, and candidacy requirements were also voiced by participants, revealing a desire for clear answers to personal questions. These included: "Am I too old for OI?" "Will my weight or other medical conditions disqualify me?" and "What happens if the implant fails?". Such questions are rooted in the uncertainty of undergoing a relatively new surgery with evolving clinical guidelines. Additionally, a large number of amputees sought patient narratives and experiences from people with comparable diseases, demographics, or medical histories rather than generic responses. This highlights the necessity for a patient support tool that offers individualized routes or peer narratives that represent a range of outcomes in addition to medical facts.

Additionally, the data also illustrates that social support, particularly seen through online groups, has two functions. On the one hand, social media sites like Facebook provide rich spaces for exchanging information and providing emotional support. However, because these places are unmoderated, they may provide false information or an echo chamber of only positive results. Participants report to have seen a lack of ‘neutral’ discussions within groups, could be misleading toward those that want real and honest insights about the OI procedure.

It's interesting to note that a more recent but equally urgent issue is the need for post-operative instructions and realistic recovery timelines. Amputees sought information on how long it takes to walk again, go back to work, and manage pain, in addition to whether OI is effective. This realization highlights the need for more open communication between surgical teams and patients and identifies a serious flaw in standard rehabilitation protocols. Additionally, it restates the necessity of a decision support tool that supports patients throughout their recovery in addition to helping them weigh their initial decision.

In synthesizing these findings, it becomes clear that the decision to have osseointegration is not made in a vacuum. Peer influence, medical trust, systemic access, and individual motivation all interact to shape it. A one-size-fits-all approach is inadequate, as demonstrated by the variety of informational needs that participants reported. Thus, the creation of a patient-centred, evidence-based decision support tool that takes into account the complexity of the procedure as well as the individuality of those contemplating it is highly encouraged.

Conclusion & Next Steps

Using qualitative data from social media networks, survey responses, and one-on-one interviews, this study set out to investigate what amputees want to know as they consider Osseointegration. The results show that people facing this difficult medical decision encounter a wide range of informational demands, emotional considerations, and logistical problems. Participants consistently expressed a desire for accurate, thorough, and balanced information across all data sources, especially when it came to risks, recovery schedules, long-term results, and candidacy. The study also emphasized the structural obstacles that restrict fair access to care related to OI, the impact of peer support networks, and the variation in clinical recommendations.

The decision to pursue OI was frequently accompanied by uncertainty and information overload, even though many people saw it as a life-improving substitute for socket prostheses. Prospective candidates must assemble their knowledge from disparate and frequently contradictory sources due to the absence of centralized, evidence-based educational resources. In addition to jeopardizing informed consent, this puts patients through unnecessary emotional and mental strain. In addition, discrepancies in healthcare provider support and post-operative rehabilitation highlight the need for a better organized, patient-informed approach to care.

This study encourages the creation of a patient-centred decision support tool intended especially for those thinking about osseointegration to address these issues. By providing clearly presented, medically verified facts and including patient narratives to represent a range of lived experiences, such a tool would close the current informational gap. The decision support tool has a great potential to improve clinical results and informed decision-making by assisting users with eligibility requirements, surgery expectations, rehabilitation routes, and long-term considerations. The tool would allow amputees to feel better informed and more confident as they navigate a complex and deeply personal medical decision.

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