

Improving the Patient Experience Together for Better Rehabilitation Outcomes: A Cross-Disciplinary Perspective

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Abstract

Background: The integration of physical therapists, occupational therapists, and health services managers is integral to ensuring a patient-centered approach and actively involving patients during rehabilitation. However, the effects of such integration in the context of tertiary hospitals should be further examined.

Objective: This study sought to examine whether the involvement of multiple disciplines leads to increased patient satisfaction, greater patient participation and improved functional outcomes after rehabilitation and what barriers and facilitators could be encountered in its successful implementation.

Methods: In a tertiary hospital, a mixed methods approach involved 150 patients and 30 health care professionals. Quantitative information was obtained using patient satisfaction questionnaires, adherence and functional improvement scores; qualitative information was gathered through semi-structured interviews and focus group discussions with patients and healthcare professionals; thematic analysis was performed.

Results: Quantitative approach showed that patients were very satisfied with the results of the therapy (mean score = 85), a good proportion adhered (92%) and improved functionally (mean outcome = 7.5). A follow-up compliance of 88% was noted. Qualitative results pointed out four main themes: communication and trust, barriers to engagement, interdisciplinary collaboration and patient empowerment. Patients stressed these: The necessity for better patient-professional communication, shared decisions and adequate education and much more common barriers related to engagements – scheduling and resource availability.

Conclusion: The use of multidisciplinary teams increased patients' satisfaction and their participation in the rehabilitation process due to better communication, coordination of care and active patient's participation. Additional of solving logistical issues and the use of novel technologies to further enhance rehabilitation services might be considered. Further research is needed to assess the sustainability and effectiveness of multidisciplinary models in different healthcare contexts.

Keywords: Multidisciplinary rehabilitation, patient satisfaction, patient engagement, tertiary hospital, collaborative care, functional outcomes, physical therapy, occupational therapy, healthcare administration

Introduction

The quality of healthcare services is gauged in terms of the satisfaction and engagement of a patient with that particular service. Participation approaches are critical within rehabilitation processes as they help accomplish desired patient outcomes within rehabilitation contexts. The interactions and relationships provision of rehabilitation and therapy services alongside the degree of availability and efficacy of such therapy services are often graduated to a patient's level of satisfaction with rehabilitation services, while their level of engagement exemplifies the extent to which patients are active in their treatment and recovery processes (Higgins and Leto, 2023).

When examining the Scottish healthcare system, the patient experience was augmented due to efficient cross-disciplinary functioning between occupational therapists and/or physical therapist and health administrators. Such approaches fostered a collaborative model of care provision whereby the administrative roles and functions were able to be aligned with the necessary clinical or operational goals (Nwagwu et al., 2023). In this manner, such collaboration not only reduces the burden of rehabilitation in terms of the time and resources expended, ensuring greater psychological and social recovery for the patient and enhanced satisfaction and engagement continua.

According to Weerakkody and his collaborators in 2024, multidisciplinary teams who work together can both decrease the duration of hospitalization of patients and also increase their degree of independence through custom care plans. Winning patient satisfaction, decision aids, and custom-tailored approaches towards commutation are best practices for patient-centered care (van der Wardt et al., 2021).

Several factors render the desired patient satisfaction and rehabilitation engagement difficult to achieve while in rehabilitation. Lack of resources, differing expectations amongst individual patients, and intra-team communication deficits are such challenges. Meeting these challenges calls for timely, evidence and patient feedback-based changes in both therapeutic and managerial practices (Soever et al., 2023).

The aim of the research is to assess the impact of collaboration between the therapist and the administration regarding the patients' anger towards the rehabilitation exercises during such sessions and determine the mechanisms that might limit such a collaborative effort.

Literature Review:

1. How Patient Satisfaction and Engagement Are Evaluated

The satisfaction of patients is a powerful measure of the quality, and quality has a strong correlation with patient recovery, the degree of adherence and coverage of treatment, and efficiency of rendered services. In the case of rehabilitation, the perceived quality of care, resource availability, and the match between the therapeutic strategies and patient expectation can greatly affect satisfaction levels (Treger et al. 2024). Engagement, on the other hand, relates to the extent of the involvement of patients in the treatment process, such as decisions, compliance to stated rehabilitation goals, and participation in programming them. Higher engagement, for example, has been reported to enhance functional recovery, reduce the chances of readmissions, and improve mental health (Weerakkody et al., 2024).

2. Effectiveness of Rehabilitation Programs in Multi-Disciplinary Teams

Use of multi-disciplinary teams composed of Physical and occupational therapists, health service administrators among other specialists has significantly improved delivery of care that is geared towards the needs of the patient. Emphasis and commitment to multiple disciplines guarantees that methods used in formulation of care are holistic in nature, incorporating both recovery in physical and emotional and social areas. For example, such teams can work together to integrate the delivery of care so that patients mitigate the slowing down of treatment because they are not able to access the services. (Williams, 2024).

High engagement and improved patient satisfaction seem to be the goals that are yet to be reached in the rehabilitation process. Modern technology and communication methods are however helping improve the rehabilitation process rapidly.

- **Communication Focused Approach:** Effective communication seems to be a relevant aspect while healing a patient since maintaining patient's adherence to therapy programs and their general satisfaction levels seem to increase with good communication skills (van der Wardt et al., 2021).
- **Therapy Through Technology:** Tele-rehabilitation platforms in combination with mobile phone applications have improved access to treatment for patients and broadened their participation. These devices will allow real time effects monitoring, individual responses, and interactions with the medical staff (Soever et al., 2023).
- **Initiation of Mobility Programs:** Setting up of trained measures in a rehabilitation center has been linked to lower hospital stays and more satisfying functional results. The success of such measures is determined by teamwork of the therapists and the administration (Treger et al., 2024).

4. Barriers to Effective Multidisciplinary Rehabilitation

Implementing multidisciplinary rehabilitation may be beneficial both to care teams and patients but falls short of its expected implementation. For instance, a lack of interprofessional communication, limited resources, and different expectations of patients can diminish the overall efficacy of such strategies (Weerakkody et al., 2024). Administrative problems also affect the conduct of tailored medicine, for example, lack of funding and other logistical problems. Surveillance of such patients requires constant assessment and evaluation, interprofessional education and the use of science - based interventions (van der Wardt et al., 2021).

5. Findings From Recent Studies

- Treger et al. (2024): Collaborative processes should be fully integrated when developing non-inpatient rehabilitation services with the use of a participants' matrix as an evaluative tool. It was noted that such models significantly elevated satisfaction by dealing with clinical and administrative concerns in the provision of services.

- Williams (2024): Against Medical Advice Discharges: Clinician Perspectives on Implementing Early Supported Discharge Programs. This demonstrated the positive role of multidisciplinary teamwork in increasing the level of patients' involvement in the care as well as their satisfaction with the outcome.
- Van der Wardt et al. (2021): This study included a qualitative assessment of several digital rehabilitation platforms and showed that technology enhanced adherence to and engagement in rehabilitation programs when coupled with a more personalized approach.
- Soever et al. (2023): The effectiveness of virtual triage systems in the management of musculoskeletal rehabilitation in order to alleviate waiting times and enhance patient satisfaction was comprehensively discussed in the study.

6. Moving Forward

In order to increase output in both practical and management domains, there is a need for more creativity that enhances patient satisfaction and their engagement. There must be collaborative effort between the therapists and the administrators if there is to be a continuity in the patient care experience. In future studies, there is need to emphasize on formulating universal satisfaction and engagement metrics, determining the impediments to team based activities and addressing the mechanisms of service delivery in an inventive manner.

Methodology

Research Design and Methodology

Adopting a mixed-method approach, this study sought to determine the effect of multidisciplinary approaches to care on patient satisfaction and engagement from the perspective of healthcare providers and patients in a tertiary hospital rehabilitation setting. The study was conducted over the duration of 6 months, and it utilized questionnaires from patients receiving rehabilitation services as well as healthcare providers who participated in their care.

Study Location and Participants

This study was undertaken in the rehabilitation department of a tertiary hospital with both inpatient and outpatient services. These participants featured:

1. Patients: There were 150 patients included in the study who were given physical and/or occupational therapy during the selected period. Patients were included based on the following parameters:

o Inclusion Criteria: Adults of at least 18 years of age that completed a minimum four rehabilitation sessions and provided their written informed consents.

o Exclusion Criteria: Patients with psychiatric issues that would affect their ability to participate in surveys or interviews.

2. Healthcare Providers: This category comprised of 30 of physical and occupational therapists, administrative staff who provided direct care to the patients and participated in their discharge planning.

Data Collection

1. Collected data in numerical form

o Examined Patient Feedback through standardized questionnaires on communication sufficiency, service provision, and outcomes using PROMIS following patient's discharge from medical facility.

o Metrics: Adherence to therapy, rate of attendance of therapy sessions, and compliance to follow up appointments were reported as the metrics of assessment for this study.

o Clinical Interventions Records: Data such as mobility, independent function as well as pain levels were extracted from the clinical records of recovered patients.

2. The data collected contains information not measurable in numbers:

o Semi Structured Interviews: These were conducted on a selected subset of patients (n = 150) and healthcare providers (n = 30) to understand the thoughts and feelings of the patients regarding the multidisciplinary approach.

o Focus Groups: Conducted with therapist as well as administrators to understand the collaboration of efforts to enable teamwork.

Intervention

The aforementioned study is aimed at evaluating the very same model which was adopted by the researchers in their study and consisted of physical as well as occupational therapists and administrators who were assigned the task of formulating and executing a comprehensive patient care model. Some of the components included:

- Interdisciplinary sit downs to deliberate on the patient's progress and alterations should any be required in the treatment plan.
- Administrative assistance in the scheduling as well as the following up.
- Seminars targeting patients and headed by a therapist and the administrator.

I. General Overview

Data Calculation

1. Quantitative Analysis:

o Demographics of patients and responses from the survey were calculated through descriptive statistics.

o t tests and ANOVA were used as inferential statistics to determine engagement and satisfaction of the different patient groups in order to locate key predictors of positive outcomes.

2. Qualitative Analysis:

o Thematic analysis was conducted on interview and focus group transcripts with NVivo in regard to the emerging themes with regards to satisfaction, engagement and multidisciplinary work.

3. Data Integration:

o A combined approach of quantitative and qualitative findings was applied to answer the research questions through triangulation.

Ethical Considerations

Permissions were obtained from the ethics committee of the hospital prior to the commencement of the study. All the participants made a written and informed consent prior to their participation in the study. Participants' confidentiality was guaranteed as the data received was de-identified and they could withdraw at any time from the study.

Findings

Quantitative Findings

The quantitative data analysis suggested improved overall patient satisfaction together with patient engagement and functional outcomes with the multidisciplinary rehabilitation program. Important indicators are presented in the Table 1.

Table 1: Quantitative Findings

Measure	Mean	Standard Deviation	P-value (Significance)
Overall Satisfaction Score (0-100)	85	5	0.002
Therapy Adherence Rate (%)	92	3	0.001
Average Functional Improvement (0-10 scale)	7.5	1.2	0.005
Patient Follow-Up Compliance (%)	88	4	0.003

• Air of Satisfaction: Patients reported satisfaction with the rehabilitation services above (mean score of 85) thus signifying that our communication approaches were effective, or range of care was indeed broad.

• Motivation: The adherence rate is demonstrated at a high level reaching 92%, which obviously expresses the patient's dedication to their respective therapy plans.

- **Functional Capability Improvement:** There was a significant functional improvement of patients that were measured averagely at 7.5 in a 10 point scale.
- **Attendance and Engagement:** For the compliance in respect of follow-up appointments the level stood at 88%, which shows great engagement.

Qualitative Findings

As various providers and patient bear different experiences, their qualitative findings bring attention to a number of ideas and sub-ideas which deepens the exploration. The ideas, in conjunctions to the participant replies are shared below:

Theme 1: Communication and Trust

- **Sub-Theme: Effective therapist-patient dialogue**
 - o **Participant Replies:**
 - “I was guided by the therapist every step of the way in a way I would understand what was going on.”
 - “It seemed as though I was heard and that empowered me to have faith in the process.”

Theme 2: Barriers to Engagement

- **Sub-Theme: Scheduling conflicts and resource limitations**
 - o **Participant Replies:**
 - “At times, getting an appointment turned out to be impossible even if that time was me I was hoping for.”
 - “Due to the high number of questions the patients needed to be answered, there was a lack of staff to fulfill the demand.”

Theme 3: Interdisciplinary Collaboration

- **Sub-Theme: Role confusion and shared decision making**
 - o **Participant Replies:**
 - “Care felt integrative in a way I felt like both an administrator and my therapist were part of it.”
 - “I liked the idea of sitting in team meetings to discuss my improvement.”

Theme 4: Patient Empowerment

- Sub-Theme: Patient participation in care and education
 - o Participant Replies:
 - “The sessions which aimed to educate patients enhanced my recovery.”
 - “Managing recovery exercises at home just became this whole new experience, which gave me more assurance to do it.”

Discussion

The outcomes of this investigation differentiate the importance of the multidisciplinary model in practice and managing patient satisfaction, engagement, and functionality in a rehabilitation unit of a tertiary hospital. Quantitative and qualitative outcomes point to the significance of working together as a team between the therapists and the administrators in providing care that meets the patient’s needs.

Quantitative Inputs

Patients rated their satisfaction as very high (mean = 85) and adherence rates were good (92%) suggesting that the multidisciplinary model was able to deliver on patient expectations. Such findings correlate to previous studies indicating that the use of integrated care models increases patient satisfaction due to the consideration of many aspects. (Treger et al., 2024). The significant improvement in functional ability (mean = 7.5 on a scale of 10) also supports the therapeutic gains that resulted from a team approach where therapists worked together to achieve the best possible outcome for patients. In the same way, follow-up compliance (88%) indicates a satisfactory level of patient’s involvement in kwangi which is desired for the achieved rehabilitation results to be maintained.

Qualitative Areas and Their Consequences

The qualitative assessments dig deeper into how impacting patients and providers performed and by so doing, highlighted critical areas of success and opportunities to leverage on:

1. **Communication and Trust:** Participating therapists deem effective communication between therapist and patient a very very important factor in patient satisfaction. Patients appreciated being well informed and were more relaxed with and responsible for interaction. The finding further confirms the need to prove health workers with training in communication skills which are geared towards trust building for more enhanced engagement levels.
2. **Barriers to Participation:** Issues such as lack of proper scheduling, lack of resources became a barrier for patient engagement; however, the rest of patients’ on the whole had a positive feedback on their experience. This suggests that resources could be better allocated and flexibility in resourcing in high-demand hospitals could be better provided towards the patients.

3. **Multidisciplinary Teamwork:** Satisfied patients were attributed to effective communication concerning shared decisions and defined responsibilities of every member of the team. These gradual enhancements were evident in the regular team meetings and in the interdisciplinary approach to care management. There is a growing number of studies indicating that team-based care enhances satisfaction among both patients and providers (**Williams, 2024**).

4. **Patient Involvement:** The role of telling a patient of how they should manage their condition without effective treatment modality and equipping them the necessary tools and resources became an issue of concern. The focus on education and self-management became the goal of accompany. Sessions that were carried out along with instructions received from nurses also facilitated the process of recovery by encouraging active participation by patients.

Tackling Problems

Although the multidisciplinary approach was greatly beneficial, some barriers still exist. The qualitative findings brought to light logistical aspects, such as appointment and staffing issues, that limited patients' capacity to take part. These problems need specific management solutions focusing on administrative issues such as reorganizing workflows as well as investing in the training of personnel. Furthermore, implementing virtual technology, such as tele-rehabilitation platforms, may reduce access barriers and promote engagement in patients with limited mobility or time restrictions (Van der Wardt et al., 2021).

Aid Session Limitations / Strengths

This research's strengths lie in its breadth as a multi-components study with quantitative and qualitative roles that perfectly capture the essence of multidisciplinary care. There are however some limitations that were present. Since this study was done in only one tertiary hospital, it is difficult to assume the same results in all other hospitals.. Second, people's responses on the surveys determining their satisfaction and level of engagement were self-reported hence enforcing bias.

Looking Forward / Next Steps

More research into assessing the different health models in the context of multi-disciplinary approaches seem interesting and fall under scope. Multi-year studies of considering how patient outcomes and use of hospital services after multi-disciplinary care approaches are necessary to ascertain their effect. Assessment of how the newly emergent technologies can solve the current barriers of care such as excessive expenditure should also be researched.

Conclusion

In this study it is demonstrated that a multidisciplinary approach in rehabilitation increases overall patient satisfaction and clinical outcomes. It was emphasized that novel methods need to be used in solving logistical problems so that further improvement of the multidisciplinary approach can be achieved and the requirements of both the patient and the provider are well met.



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