Improving Patient Access: Integrating an In-house Physical Therapist for Streamlined Musculoskeletal and Neurological Care in an Internal Medicine Clinic

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Abstract

Primary care providers frequently encounter patients with musculoskeletal conditions, yet referrals to physical therapy often result in prolonged wait times and limited availability, leading to poor patient compliance (McKay et al., 2021). This quality improvement project aimed to optimize physical therapy services within an internal medicine clinic by integrating a physical therapist into scheduled hours twice a week. The objectives were to identify areas for improvement in the delivery of physical therapy services, enhance patient care experiences, and foster interdisciplinary collaboration among healthcare providers. A survey was conducted to assess patient and provider satisfaction with the physical therapy services in the clinic, as well as to identify any challenges faced by the referring providers and improvements in patient access to physical therapy services. Findings revealed high satisfaction levels among both patients and providers regarding physical therapy (PT) services, with patients reporting faster access to services, and improvements in care. However, challenges related to physical therapist availability and referral processes were identified as areas for improvement. The results underscored the significance of integrating physical therapy services into primary care settings for enhancing healthcare accessibility. Addressing identified operational challenges, such as increasing physical therapist availability and streamlining referral processes, can further enhance the effectiveness of physical therapy services in primary care settings. These findings contribute to the growing body of evidence supporting the integration of physical therapy services within primary care and have implications for improving patient outcomes and healthcare delivery practices. Further research is warranted to explore additional strategies for optimizing physical therapy services and to assess the long-term impact of integrated care models on patient outcomes and healthcare costs.

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Problem Description

Musculoskeletal injuries were one of the most common complaints seen in primary care clinics, accounting for about 10-27% of the visits (Bodenheimer et al., 2021). In the United States, over 100 million individuals grapple with musculoskeletal pain, posing a significant burden on healthcare resources, leading to an annual expenditure surpassing $260 billion in healthcare costs and lost productivity (Magel et al., 2021). Physical therapy (PT) stands out as a primary non-pharmacological treatment for a myriad of musculoskeletal injuries and orthopedic conditions, offering benefits such as pain reduction, enhanced mobility, balance, coordination, and improved quality of life (Coss et al., 2021). However, extended wait times often hindered patient adherence to physical therapy referrals, leading to delays, discontinuation of care, and a lack of communication between disciplines (McKay et al., 2021).

A recent data analysis at a major academic medical center revealed that in 2022, approximately 3,876 patients were referred to PT from a total of twelve different internal medicine and primary care departments (S. Abtin, personal communication, June 1, 2023). However, despite receiving a referral, obtaining an immediate appointment remained uncertain. At the time, the wait time to secure an appointment with the physical therapist was around three weeks, as indicated by scheduling data from the in-clinic physical therapist (E. Miller, personal communication, November 30, 2023). Sharpe et al. (2022) emphasized that patient knowledge and systemic barriers, including prolonged waiting times, the limited availability of appointments outside regular business hours, and accessibility constraints, significantly influenced the utilization of PT post-referral. In addition to these barriers, ensuring care continuity through effective care coordination with the referring provider regarding findings, follow-up recommendations, and the management plan was crucial for fostering collaborative teamwork (Peterson

& Heick, 2023). Notably, during the COVID-19 pandemic, there was a substantial reduction in PT referrals, resulting in delayed care (American Physical Therapy Association, 2021).

To address the issue of prolonged wait times and foster better collaboration between referring provider and physical therapists, one potential solution was to offer access to physical therapy services within the clinic. This concept is not new, as three well-established models for PT integration in primary care have been designed to enhance effectiveness, lower expenses, and enhance patient care delivery (Murphy et al., 2005). Collaborative efforts among interprofessional teams had demonstrated effectiveness in improving patient care across various healthcare settings (Coss et al., 2021). Addressing delayed access resulting from prolonged wait times for PT referrals from referring providers was crucial to prevent significant delays in essential care, ultimately influencing patient outcomes, contributing to escalated costs, heightened reliance on medications, and the potential need for additional imaging procedures (Deslauriers et al., 2021).

Available Knowledge

Previous studies have demonstrated the effectiveness of integrating physical therapy services within primary care clinics in improving patient access and satisfaction rates. A study conducted by McKay et al. (2021) revealed that the PT-integrated clinic exhibited higher numbers of placed and completed PT referrals compared to the traditional clinics, thereby improving access to PT services. Moreover, the study highlighted that the integrated clinic achieved a shorter turnaround time for PT referrals, signifying enhanced efficiency in the referral process (McKay et al., 2021). In alignment with these outcomes, Bodenheimer et al. (2021) observed that integrating physical therapists into primary care clinics resulted in enhanced patient access to immediate PT services. The elimination of a separate referral process led to significant patient satisfaction rates of 98.6%, primarily due to the eradication of wait times for PT referrals (Bodenheimer et al., 2021).

Beyond prolonged wait times for PT referrals, individuals faced additional barriers, including issues related to insurance, transportation, finances, time restraints, cultural beliefs, level of healthcare literacy, and other social determinants of health (Nunez-Gaunaurd & Goldin, 2023). Furthermore, according to Kumar et al. (2022), individuals with knee osteoarthritis exhibited a higher risk of opioid use associated with delayed initiation of physical therapy. Consequently, incorporating a physical therapist as part of the clinic staff could help mitigate extended waiting periods, provide quicker access to appointments, and address various barriers outlined earlier (McKay et al., 2020; Bodenheimer et al., 2021).

Rationale

The previous process for PT referral revealed a wait time of approximately three weeks to secure appointments (E. Miller, personal communication, November 30, 2023). To optimize that process, an internal medicine clinic designated a physical therapist as a part of the clinic staff twice a week to reduce wait times and minimize delays in patient care. This initiative aimed to enhance efficiency and provide swifter access to physical therapy services. Additionally, it sought to foster improved collaboration between the PT and referring providers in the clinic, enabling the PT to triage acute conditions, and promote more effective and timely patient care. Consequently, the implementation of a Lean framework was deemed the most suitable framework for this project, given its emphasis on streamlining the referral process, eliminating unnecessary steps, and cultivating a more patient-centric and provider-collaborative approach to physical therapy within the internal medicine clinic setting.

By directly incorporating a physical therapist into the clinic, the project endeavored to eliminate unnecessary steps in the referral process, eradicating patient waiting times and delays. It established a more direct pathway for patients to access necessary services, enabling them to secure same-day PT appointments in the same location as the referring provider. This integration of a physical therapist in the

clinic fostered enhanced collaboration between primary care providers and the physical therapist, facilitating efficient coordination of care.

With the proposed addition of a physical therapist to the team, the referring provider, typically the patient's primary care provider, gained the ability to conduct warm hand-offs to the physical therapist in the clinic on the days when the physical therapist was available. On days when the physical therapist was not present in the clinic, patients could be scheduled for an appointment with the physical therapist on the scheduled days.

Specific Aims

The specific aim of the project was to optimize the efficiency and accessibility of physical therapy services within the internal medicine clinic by incorporating a physical therapist into the clinic during scheduled hours from 9:00 am – 12:00 pm twice a week, on Tuesdays and Fridays. The project aimed to assess the challenges providers face in referral processes and measure any reductions in wait times and improvements in patient care. Additionally, the project sought to examine the level of collaboration between physical therapists and providers within the clinic setting.

Methods

Context

A large Internal Medicine and Geriatric clinic within an academic medical center in the Pacific Northwest (PNW) offered comprehensive care to adults, providing a broad spectrum of services ranging from health screening and prevention to management of complex, chronic illnesses. The clinic's expansive services encompass adult care, women's health care, geriatrics/senior care, gender-affirming and LGBTQ+ primary care, behavioral health, mental health and wellness, addiction services, and HIV/AIDS care. The clinic consisted of approximately 84 clinical providers and 50 other supporting personnel. Furthermore, the clinic had initiated a pilot project, introducing an in-house physical therapist twice a week for half a day, aiming to integrate PT collaboration directly within the clinic.

Interventions

The project utilized a Lean framework to systematically identify and eliminate waste, optimize processes, and enhance overall efficiency. The providers in the clinic directed patients with musculoskeletal and neurological conditions to the in-house physical therapist, enabling immediate communication through same-day warm hand-offs for prompt assessment and potential treatment. This intervention aimed to streamline the process, reducing delays in accessing physical therapy services, ultimately boosting patient satisfaction, and fostering improved collaboration between providers and the physical therapist. Both patient and provider satisfaction feedback were collected to assess the experience thoroughly. The gathered data were analyzed, and necessary adjustments were implemented based on identified concerns observed during the implementation process.

Measures

The outcome measure for this project involved administering of a patient satisfaction survey to collect quantitative and qualitative data on various aspects such as wait times, communication, and the perceived effectiveness of immediate access to the physical therapist. Additionally, a provider satisfaction survey was distributed to referring providers to gauge their perspectives on ease of use, impact on patient care, and collaboration with the physical therapist. The satisfaction feedback was gathered through a Qualtrics survey emailed to the referring providers for completion. The balancing measure for this project aimed to assess the impact on the workflow of referring providers and physical therapists to ensure that the implemented changes did not unintentionally disrupt or burden existing processes. Finally, the process measures encompassed tracking referral volumes to evaluate the adoption rate of the new process, which involved monitoring the number of referrals initiated by providers for musculoskeletal and neurological symptoms. Another process measure involved monitoring the number of patients encountered by the physical therapist during each scheduled shift. This

information provided insight into the workload and productivity of the physical therapist during each shift.

Data Analysis

Patient satisfaction surveys were distributed to individuals who had received services from the in-house physical therapist since the project's initiation on January 24, 2023, through November 30, 2023. This inclusive timeframe allowed for a comprehensive evaluation of patient experiences during the intervention period. The surveys captured feedback on various aspects, including wait times, communication, and the perceived effectiveness of having an in-house physical therapist. Simultaneously, data was compiled on the number of referrals made directly by referring providers to the in-house physical therapist within the clinic. This data was analyzed to assess the volume of same-day warm hand-offs or follow-up appointments initiated by referring providers, offering insights into the adoption rate of the new process.

Furthermore, as the project concluded, provider satisfaction surveys were administered to the referring providers engaged in the referral process. These surveys aimed to gather valuable perspectives on the ease of use, impact on patient care, and collaboration with the in-house physical therapist. Surveys were conducted through the Qualtrics platform for both providers and patients, utilizing in-person methods, email, and via MyChart messages. The data collected from both patient and provider surveys underwent thorough quantitative and qualitative analysis to identify patterns, trends, and areas for potential improvement. This comprehensive approach ensured a robust evaluation of the project's impact from both the patient and provider perspectives.

Ethical Considerations

All patients were informed about their referral to the physical therapist in the clinic. Patient satisfaction and provider satisfaction data were collected without any identifying information to ensure

privacy and confidentiality. The participating clinic site had provided consent for the project by formally endorsing it through a signed letter of support.

Results

A total of 100 patients were invited to participate in a patient satisfaction survey via Qualtrics, yielding 60 responses (Appendix C). Approximately 75% reported being very satisfied with the physical therapy services provided. Additionally, about 68% experienced faster appointment scheduling following primary care interactions compared to usual. Approximately 53% noted improvements in their condition after attending a physical therapy session, while about 41% were unsure of any improvements. Communication between healthcare providers was rated highly, with over 76% of participants describing it as excellent. Furthermore, about 79% of respondents encountered no difficulties scheduling or attending their PT appointments. Many patients appreciated their physical therapist's knowledge, thoroughness, and educational approach regarding their conditions.

The provider satisfaction survey, also conducted through Qualtrics and distributed to providers and residents in the clinic, garnered 12 completed responses (Appendix D). All respondents indicated they frequently encountered patients with musculoskeletal or neurological conditions. Nearly all felt comfortable referring these patients to the on-site physical therapist. About 75% were very satisfied with the referral outcomes, although 8% were very unsatisfied. Communication and collaboration between the physical therapist and providers were highly rated at 83%. Additionally, 66% of the respondents observed significant or exceptional patient improvements with the inclusion of physical therapist services. Approximately 75% of the respondents have noted a positive impact on patient satisfaction, and all respondents expressed a 100% likelihood of continuing to refer patients to the on-site physical therapist.

However, providers identified challenges related to the physical therapist's availability, only being in the clinic twice a week, issues with scheduling, warm hand-offs through Teams messages, patient visit length following provider care, and clarity on the physical therapist's resource role. Providers expressed a desire for more available days for the physical therapist in the clinic and a more streamlined referral process. Moreover, there was a call for more education on the physical therapist's scope of practice.

The physical therapist in the clinic reported that on an average day, he conducted about 3.5 visits/day and received referrals from about 39 providers. He had a total of about 112 patient visits during that time. The average wait time for a patient to see the physical therapist in the clinic from the date of referral was about 3.5 days. Some of the challenges reported by the physical therapist in the clinic were regarding the timing of the referrals, as most of the same-day referrals came in at the end of the shift. Similarly, although the collaboration with the providers had improved, there was still room for better warm hand-off to the physical therapist in the clinic.

Discussion

Summary

The integration of physical therapy services within the primary care clinic demonstrated significant positive outcomes in terms of patient satisfaction, quicker appointment scheduling, and overall improvements in patient conditions. The project's findings aligned closely with its aim to optimize the efficiency and accessibility of physical therapy services. The patient satisfaction survey indicated that a substantial majority of participants (75%) were very satisfied with the services received, and a notable 68% experienced faster scheduling for appointments following primary care visits. Furthermore, the high rate of excellent communication between healthcare providers, as reported by over 75% of participants, underscored the project's success in fostering effective collaboration within the clinic setting. However, it was important to note that some patients expressed uncertainty about improvements after physical therapy sessions, with approximately 41% indicating uncertainty. This timing of the survey may influence

this uncertainty, as some responses were collected immediately after patients' initial physical therapy sessions.

The provider satisfaction survey echoed these positive results, with all respondents acknowledging the frequent presentation of musculoskeletal or neurological conditions in their patients and expressing comfort in referring them to the on-site physical therapist. The satisfaction with referral outcomes and the observed significant patient improvements highlight the project's impact on enhancing patient care. The high rate of provider satisfaction and their unanimous intention to continue referring patients to the on-site physical therapist underscored the perceived value of this integrated service model.

A particular strength of the project was its ability to address and significantly reduce wait times for the physical therapy services, with the average wait time reported at about 3.5 days. This improvement was critical in healthcare, where delays can significantly impact patient outcomes and satisfaction. Additionally, the project laid a foundation for enhanced interdisciplinary collaboration, although challenges related to physical therapist availability and the need for more streamlined referral processes were identified.

Providers and the physical therapist noted specific areas for improvement, including the need for increased physical therapist availability, better scheduling and referral processes, and enhanced education on the physical therapist's scope of practice. These insights provided valuable directions for future efforts to further refine and improve the integration of physical therapy services within primary care settings, ultimately aiming to achieve more comprehensive and timely patient care.

Interpretations

The significant reduction in wait times from the date of referral to the PT appointment (approximately 3.5 days) directly correlated with higher patient satisfaction levels and faster appointment scheduling. These outcomes aligned with the findings of McKay et al. (2021) and

Bodenheimer et al. (2021), who reported improved access to PT services and higher patient satisfaction rates when PTs are integrated into primary care clinics. While both patients and providers reported satisfaction with the physical therapy services at the forefront of the program, many challenges were also noted, mainly by the providers regarding the referral process. Some anticipated challenges, such as scheduling difficulties and the need for a better referral process, suggested that while the integration of PT services offered significant benefits, operational and logistical hurdles remained. These differences might be attributed to the part-time availability of the PT and the existing clinic workflows that were not fully adapted to accommodate the new service. However, integrating PT services within a primary care clinic involves direct costs, such as salary for the PT and potential modifications to the clinic space and equipment (Bodenheimer et al., 2021). The observed improvements in patient care and satisfaction, along with the potential for long-term cost savings through more efficient care delivery, suggested that the benefits of this integrated care model outweighed the initial costs and trade-offs. Therefore, based on the results, the PT services were increased to three half-days from the initial two days. There was also an ongoing discussion with the electronic health record system to integrate a more streamlined and central referral process to the physical therapist in the clinic.

Limitations and Future Directions

This study experienced several limitations. Firstly, the study relied on surveys for patient and provider satisfaction, with a response rate of 60% for patients and a relatively small sample size for providers. The limited sample size and potential response bias may not have fully represented the views of all patients and providers impacted by the integration of PT services. Secondly, the study identified operational challenges, such as issues with scheduling, warm hand-offs, and the need for a more streamlined referral process. Based on the results, changes were made in the scheduling to add another day for PT services in the clinic, as well as working with the electronic healthcare record system to streamline the referral process. However, due to the timeline, the study could not analyze the outcomes

of these changes. Lastly, the study was conducted in a specific healthcare setting with its unique patient demographics, provider practices, and operational workflows. These contextual factors may have limited the applicability of the findings to other settings with different characteristics. Future directions include the evaluation of the expansion of physical therapist availability and the streamlining of referral processes to gauge their enduring effects on patient outcomes and healthcare costs.

Conclusion

The project indicated that integrating physical therapy services into primary care held promise for improving access to care, reducing wait times, and enhancing collaboration between healthcare providers, ultimately leading to increased patient satisfaction and improved outcomes. While the intervention demonstrated positive outcomes, ongoing efforts are needed to address operational challenges and optimize the delivery of physical therapy services within primary care settings. By addressing these challenges, integrated physical therapy services have the potential to improve patient outcomes and satisfaction rates significantly.

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Appendix A: Patient Satisfaction Survey

Patient Feedback on Physical Therapy Services

We value your feedback to help us improve our services. Please take a few minutes to answer the following questions regarding your experience with our physical therapy program. Your responses will remain anonymous.

1. Overall, how satisfied are you with the physical therapy services you received in the clinic?

- Very satisfied
- Satisfied
- Neither satisfied nor dissatisfied
- dissatisfied
- Very dissatisfied

2. Based on your most recent interaction with primary care, how quickly did you get an appointment with the physical therapist?

- More faster than usual
- Faster
- About the same as before
- Slower
- Much slower than usual

3. Did you experience any improvements in your condition after attending physical therapy session?

- Yes
- No
- Not Sure

4. How would you rate the communication between your referring provider, scheduler, and physical therapist?

- Excellent
- Good
- Average
- Poor
- Terrible

5. Did you have any difficulties or challenges during the scheduling or attending of your physical therapy appointments?

- Yes
- Maybe
- No

6. Please share any additional comments or suggestions you have about our physical therapy services or the referral process:

Thank you for taking the time to complete this survey. Your feedback is valuable to us!

Appendix B: Provider Satisfaction Survey

Referral and Physical Therapy Integration Feedback

We value your feedback to help us improve our referral process and the integration of direct access to physical therapy. Please take a few minutes to answer the following questions regarding your experience with these changes. Your responses will remain anonymous.

1. **How often do you encounter patients with musculoskeletal/neurological issues in your daily practice?**
   - Rarely
   - Occasionally
   - Frequently
   - Very frequently

2. **How comfortable are you with the idea of referring patients to an on-site physical therapist for musculoskeletal/neurological evaluation and treatment?**
   - Not comfortable at all
   - Somewhat comfortable
   - Moderately comfortable
   - Very comfortable
   - Extremely comfortable

3. **How satisfied are you with the outcomes of patients you have referred to the on-site physical therapist for musculoskeletal/neurological issues?**
   - Very Satisfied
   - Satisfied
   - Neutral
   - Unsatisfied
   - Very unsatisfied

4. **How would you rate the communication and collaboration between you and the physical therapist in managing shared patients?**
   - Excellent
   - Good
   - Average
   - Poor
   - Terrible

5. **Have you observed any improvements in the overall care and outcomes for patients with musculoskeletal conditions since the inclusion of a physical therapist in our clinic?**
   - No improvements
   - Slight improvements
   - Moderate improvements
   - Significant improvements
   - Exceptional improvements

6. **Are there any challenges or concerns you have encountered in the collaboration with the physical therapist for shared patients?**
   - Lack of timely communication
   - Differences in treatment approaches
   - Patient dissatisfaction
   - Other [please specify]

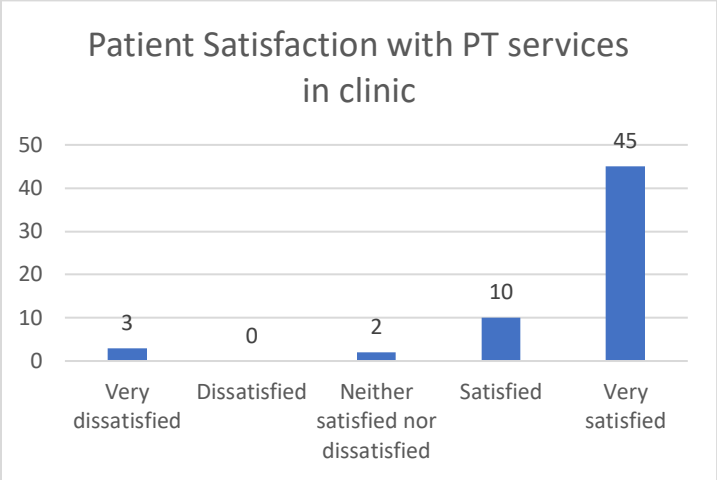
7. **Do you believe that the inclusion of a physical therapist has positively impacted the overall patient satisfaction within our clinic? Please include any comments on the selected option if present]**
   - Not at all
   - Slightly
   - Moderately
   - Very much
   - Absolutely

8. **On a scale of 1 to 5, how likely are you to continue referring patients to the on-site physical therapist in the future?**
   - 1: very unlikely
   - 2: unlikely
   - 3: neither likely or unlikely
   - 4: likely
   - 5: very likely

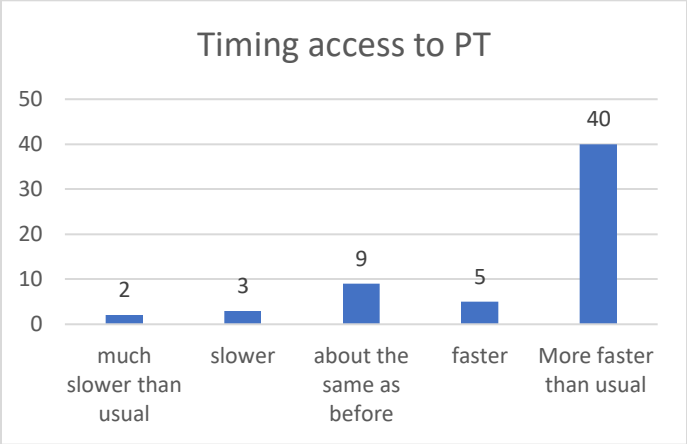
9. **How can the clinic further support and improve the referral process to the physical therapist for musculoskeletal issues? [optional]**

Appendix C: Results from the Patient Satisfaction Survey

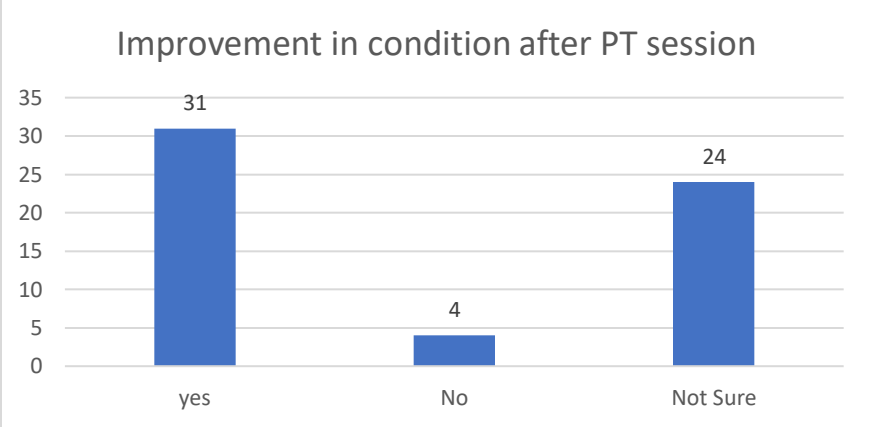
1. **Overall, how satisfied are you with the physical therapy services you received in the clinic?**



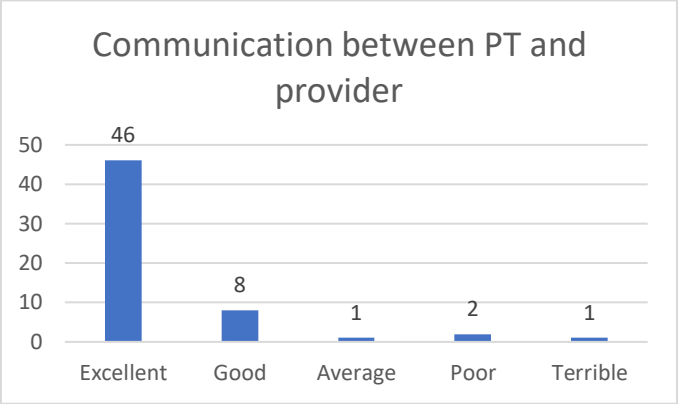
2. **Based on your most recent interaction with primary care, how quickly did you get an appointment with the physical therapist?**



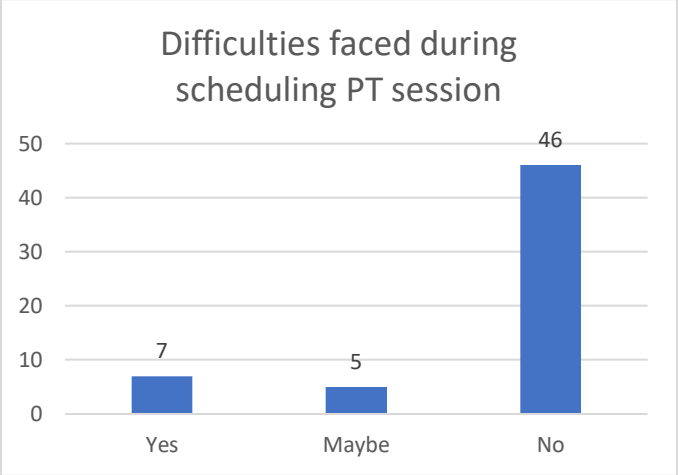
3. **Did you experience any improvements in your condition after attending physical therapy session?**



4. **How would you rate the communication between your referring provider, scheduler, and physical therapist?**



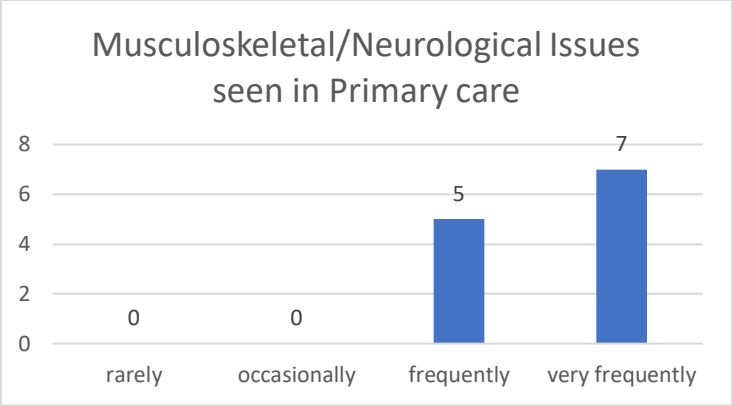
5. **Did you have any difficulties or challenges during the scheduling or attending of your physical therapy appointments?**



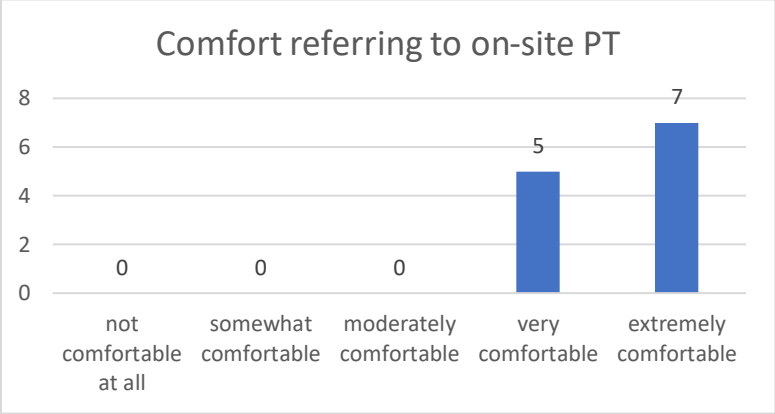
6. **Please share any additional comments or suggestions you have about our physical therapy services or the referral process:**
   - "I like the ease of scheduling for PT referred by my doctor. I think it's exactly what I needed."
   - "My discomfort was explained to me very well + exercises suggested were easy too."
   - "He was fantastic, very knowledgeable and helpful."
   - "Appreciated the rapid access. The PT was excellent."
   - "This is excellent to have PT available at time of appt and internal med MD."
   - **"**The physical therapist was very knowledgeable, conducted a thorough assessment and provided detailed information on exercises that helped me. He also gave me additional instructions and exercises to build strength and balance."
   - "This was very educational about my condition and helpful setting a treatment plan."
   - "Excellent model. Assures continuity and communication discussion of cases among providers. Felt very personalized. I greatly appreciate their approach."
   - "Eric is great, explains things and all exercises seem to help."
   - "I am appreciate, Eric. He is person I am able to connect with over my chronic pain situation. He will be able to put this complicated situation together."

Appendix D: Results from Provider Satisfaction Survey

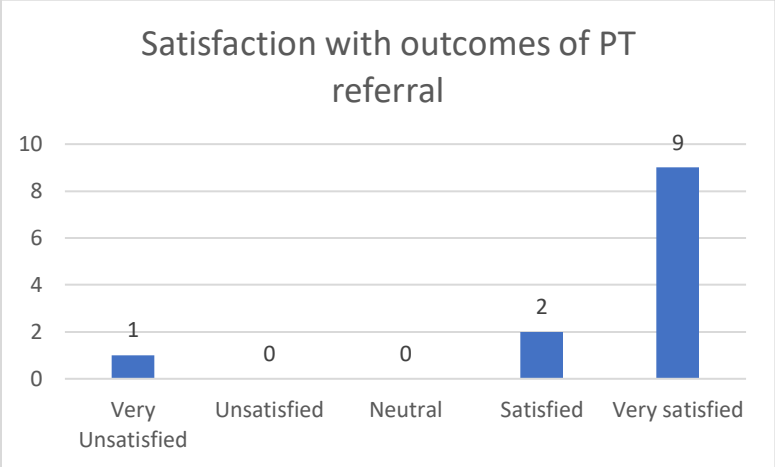
1. **How often do you encounter patients with musculoskeletal/neurological issues in your daily practice?**



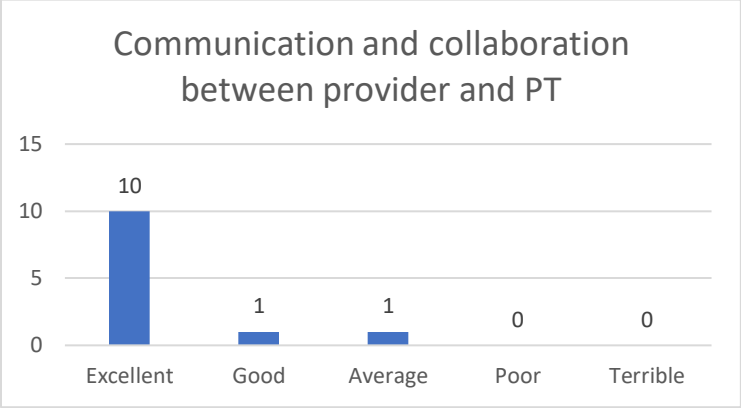
2. **How comfortable are you with the idea of referring patients to an on-site physical therapist for musculoskeletal/neurological evaluation and treatment?**



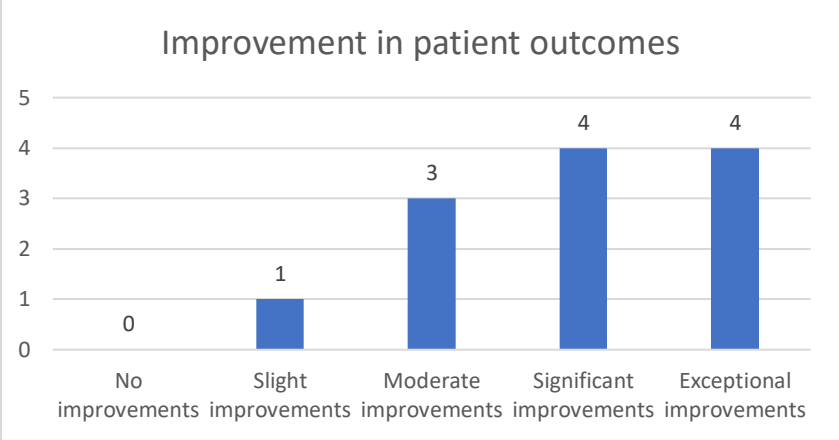
3. **How satisfied are you with the outcomes of patients you have referred to the on-site physical therapist for musculoskeletal/neurological issues?**



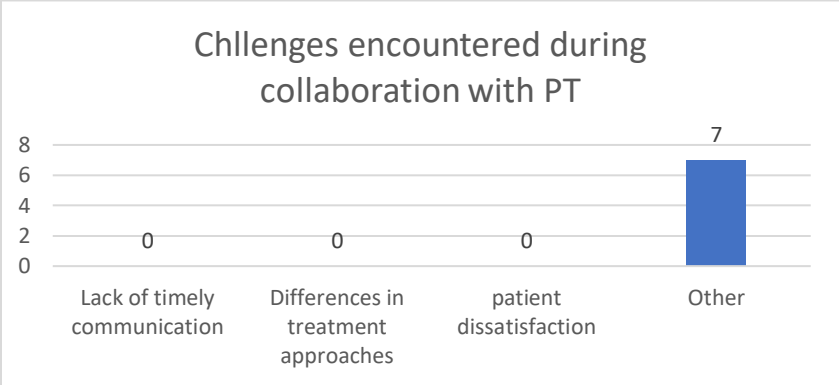
4. **How would you rate the communication and collaboration between you and the physical therapist in managing shared patients?**



5. **Have you observed any improvements in the overall care and outcomes for patients with musculoskeletal conditions since the inclusion of a physical therapist in our clinic?**



6. **Are there any challenges or concerns you have encountered in the collaboration with the physical therapist for shared patients?**



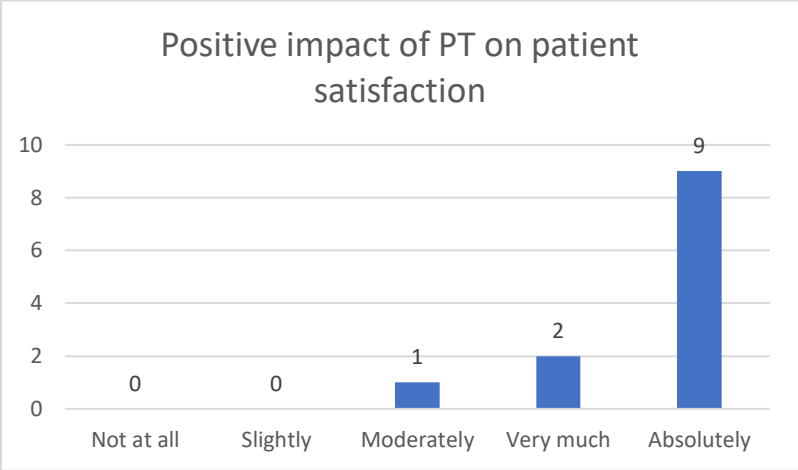
Other:

- "Was updated by him that he's a resource for residents but not faculty, so haven't reached out since then. Before this, sometimes timing slash when he's available and

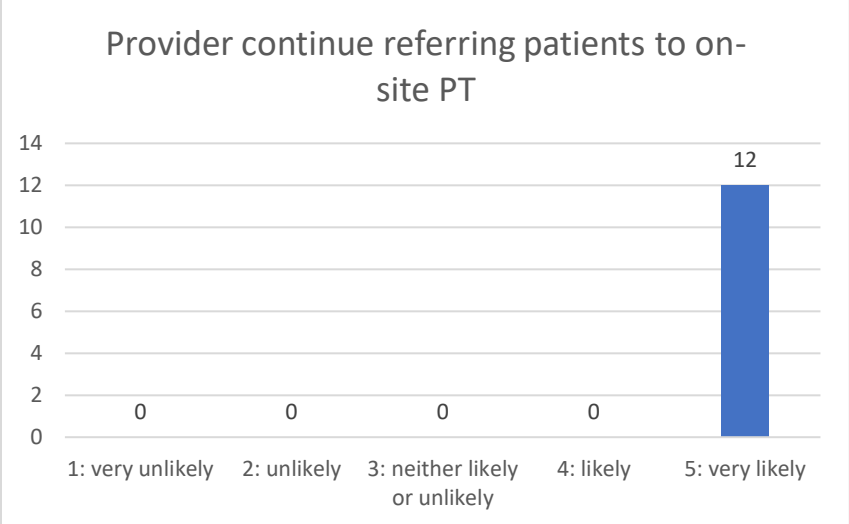
when I had patients didn't line up. Overall, great service. Would love more clarity regarding what staff PT is available to."

- "Patient's expectation of visit land and availability to stay for same day visits."
- "It's just a bit challenging to schedule--I feel like I'm bothering Eric by having to route to him, then also send a Teams message."

7. Do you believe that the inclusion of a physical therapist has positively impacted the overall patient satisfaction within our clinic? Please include any comments on the selected option if present]



8. On a scale of 1 to 5, how likely are you to continue referring patients to the on-site physical therapist in the future?

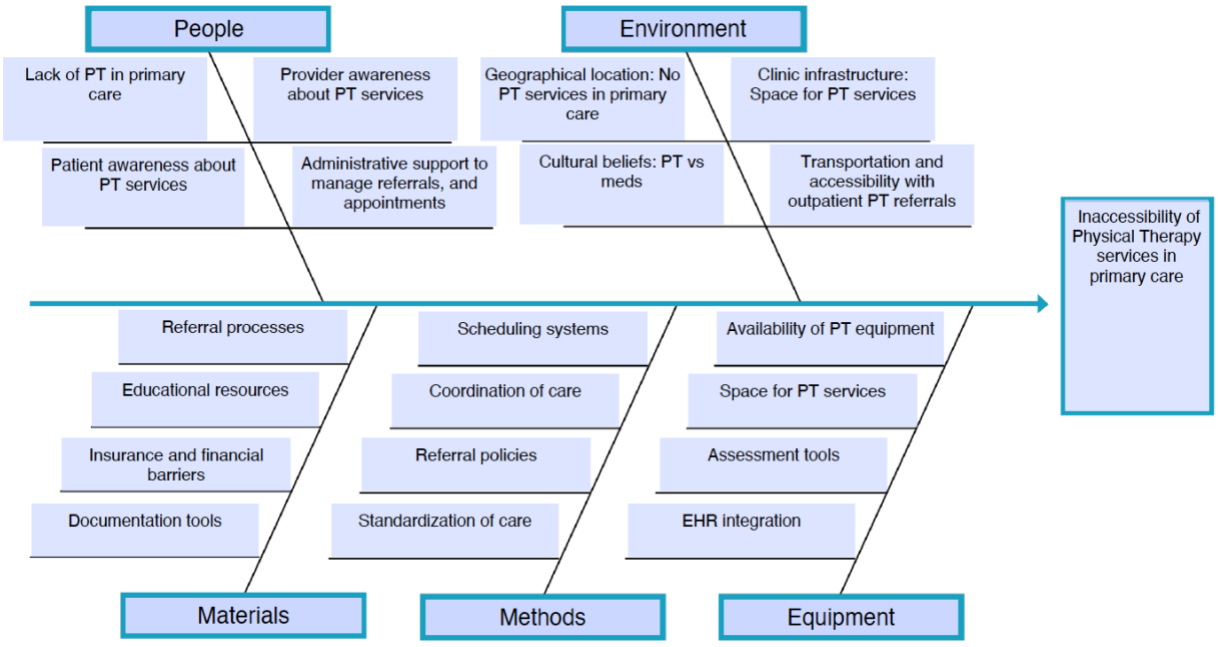


9. How can the clinic further support and improve the referral process to the physical therapist for musculoskeletal issues? [optional]

- "System works well, and adding additional days has allowed more patients and providers to access the PT care and clinic."
- "Increase number of sessions per week and system of self-scheduling by providers in open PT slots."

- “Right now, I feel like I have to 1) enter referral 2) message front desk and communicate special instructions to the patient and 3) send a teams message to Eric for every referral. That is onerous. It would be best if there were one order for IMC PT and if Eric wants the PT to continue past his session, then we could sign off on that as we cosign his note?”
- “More faculty/resident education on how PT approaches certain problems, what is within scope for PT, etc.”
- “It's great to have Eric and I am safe for more days during the week. Even when i had patients on a different day (when he's not there), he has still been able to help streamline and facilitate their prompt referral, and it seems like patients get in to see someone (him or other) faster. The one thing that remains a bit clunky is the referral process through team messaging. I know folks are working on that. Thank you for this great innovation! It really does help!”
- I wish there could just be an IMC PT referral option within the PT referral itself, or on its own, and that signing that referral would start the review and scheduling process.”

Appendix E: Process Map



Appendix F: Project Timeline

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Finalize project design and approach (703A)	X							
Complete IRB determination or approval (703A)	X							
Patient Satisfaction survey				X	X			
Provider Satisfaction survey							X	
Final data analysis (703B)							X	X
Write sections 13-17 of final paper (703B)						X	X	X
Prepare for project dissemination (703B)								X

Appendix G: Letter of Support from implementation Site

Letter of Support from Clinical Agency

Date: July 26, 2023

Dear Tenzin Lama,

This letter confirms that I, Jonathan Soffer, allow Tenzin Lama (OHSU Doctor of Nursing Practice Student) access to complete his/her DNP Final Project at our clinical site. The project will take place from approximately September 2023 to January 2024.

This letter summarizes the core elements of the project proposal, already reviewed by the DNP Project Preceptor and clinical liaison (if applicable):

- **Project Site(s):** OHSU Internal Medicine and Geriatric Clinic in Marquam Hill, Portland
- **Project Plan: Use the following guidance to describe your project in a brief paragraph.**
  - **Identified Clinical Problem:** the current referral process in the electronic health records [EHR] lacks efficiency due to the involvement of the overall OHSU physical therapy referral system. This process leads to unnecessary steps as the provider must spend extra time communicating with the physical therapist which can cause delay in care.
  - **Rationale:** By implementing a direct referral option within the internal medicine clinic, the process can be streamlined, eliminating unnecessary steps, and reducing potential delays in accessing physical therapy services in the clinic. Therefore, the implementation of a lean framework is the most suitable framework for this project to maximize value and reduce waste in the system.
  - **Specific Aims:** The project aims to streamline the referral process by implementing a new and optimized referral system that reduces delays, enhances communication, and improves the overall efficiency of generating and managing referrals. It also aims to optimize utilization of physical therapy by developing guidelines for primary care providers to help aid in the referral making process and to assess patient compliance with physical therapy due to improved access to physical therapist in the clinic.
  - **Methods/Interventions/Measures:** The outcome measure for this project is the number of referrals to PT services before and after the implementing the direct access integration to assess if the new process leads to an increase in referral rates. The balancing measure is to assess the impact on the workflow of referring providers, clinic schedulers and physical therapist to ensure that the changes do not cause unintended disruptions or burdens. The process measure will be to monitor the utilization of the direct access PT integration within the EHR system to determine if the referring providers and clinic schedulers are effectively utilizing the new functionality and patient compliance with the use of physical therapist in the clinic.
  - **Data Management:** Provider satisfaction feedback from referring providers and clinic schedulers will be obtained to gauge their satisfaction with the streamlined referral process and the integration of direct access to physical therapist. A patient satisfaction survey will also be collected. No identifiable information will be collected in the survey. The patient and the provider survey will be conducted through Qualtrics.
  - **Site(s) Support:** Site agrees to provide student to collect current and retrograde data on the number of physical therapy referrals that have been or are being placed from the clinic.
  - Other: *[Outline any other agreements you and the organization have made to further the project, if applicable.]*

During the project implementation and evaluation, Tenzin Lama will provide regular updates and communicate any necessary changes to the DNP Project Preceptor.

Our organization looks forward to working with this student to complete their DNP project. If we have any concerns related to this project, we will contact Tenzin Lama and Jonathan Soffer (student's DNP Project Chairperson).

Regards,

__Jonathan Soffer_____

DNP Project Preceptor (Name, Job Title, Email, Phone):_____

Appendix H: IRB Approval letter

IRB MEMO

Research Integrity Office
3181 SW Sam Jackson Park Road - L106RI
Portland, OR 97239-3098
(503)494-7887 irb@ohsu.edu

NOT HUMAN RESEARCH

August 29, 2023

Dear Investigator:

On 8/29/2023, the IRB reviewed the following submission:

Title of Study:	Quality Improvement: Enhancing patient satisfaction and optimizing utilization of physical therapy for improved outcomes
Investigator:	Jonathan Soffer
IRB ID:	STUDY00026241
Funding:	None

The IRB determined that the proposed activity is not research involving human subjects. IRB review and approval is not required.

Certain changes to the research plan may affect this determination. Contact the IRB Office if your project changes and you have questions regarding the need for IRB oversight.

If this project involves the collection, use, or disclosure of Protected Health Information (PHI), you must comply with all applicable requirements under HIPAA. See the HIPAA and Research website and the Information Privacy and Security website for more information.

Sincerely,

The OHSU IRB Office