Original Article

Physiotherapist Perception of Best Practice in Managing Sacroiliac Joint Dysfunctions in Private Clinical Settings

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ABSTRACT

OBJECTIVE: To examine the best practice by physiotherapist in managing sacroiliac(SI) joint dysfunctions in private clinical settings.

METHODOLOGY: The study was conducted in various physiotherapy clinics (25) involving 40 physiotherapists working more than 5 years. A qualitative, descriptive focused ethnographic approach was used to explore the physiotherapist perception of best practice in patient with SI dysfunctions at private clinical setting. Snowball sampling method was used to recruit sample physiotherapists, interviews were conducted in person by the two investigators. 40 physiotherapists were interviewed and the recordings were analyzed by the transcriber, the questions were focused on the various themes which were created by the authors. Themes include 1; Choice of modalities 2; Patient center care 3; Resource utilization 4; Inter professional consultation 5; Referral pattern followed by the clinical therapists.

RESULTS: It was found that most of the clinical physiotherapists choose TENS as one of the pain relieving modality for the SI joint dysfunctions.

CONCLUSION: This study findings highlights that private clinical physiotherapists were perceived the best practice for the patients with SI joint dysfunction and they do the best treatment for their patients.

KEYWORDS: Best practice for SI Joint dysfunction, Clinical physiotherapists, Private clinical therapists, TENS.

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INTRODUCTION

Sacroiliac joint dysfunction is one of the common causes for low back pain[1]. It is widely considered as one of the potential source for low back pain[2]. SI dysfunction ranges from 16%-30% of patients with low back pain. Few studies have showed that around 15% of the patients with persistent chronic low back pain, the SI dysfunction has been the confirmed origin of pain[3].

SI joint is one of the synovial joints with diarthrodial variety, anterior segment is a true synovial joint where as the posterior segment a syndesmosis variety. The joint comprises of various muscles, all the muscles share its action with hip joint[4]. SI joint always function with other joints there is no independent movement occurs in it. The main function of the SI joint is to transfer weight to and from the lower and axial skeleton. The stability of SI joint depends on the muscles and the ligaments surrounding the joint[5].

SI joint has unique anatomic characteristics which make it susceptible to mechanical stress and also create challenges in diagnosing the SI joint symptoms. SI Joint produce mobility during pregnancy and when the ligaments become lax, after the 5th decade of life the SI joint fuses[6]. Usually people visit the clinic with the low back pain, and the majority of individuals are adults. SI joint disorder becomes more common in sedentary and obese individuals[6].Causes for the SI joint pain may range from repetitive low impact activities to increased stress following trauma or Road traffic accidents (RTA). The disorder is seen in both genders and people of all races[7].

SI dysfunction usually causes abnormal motion or mal-alignment of the SI joint. Pain is usually over the buttock and may be sharp, dull aching, shooting over the affected side. Sometimes it may radiates down to the posterior thigh and mimic as radicular pain. Patients will frequently complain of pain while sitting down, lying on the ipsilateral side and climbing stairs[6].

Diagnosing SI joint dysfunction require a through history collection from the patients in addition to that a clear evaluation of the joint has to be done. No pathognomonic clinical history, physical examination finding or imaging study exists that aids a reliable diagnosis. Some provocative examinations would be helpful in identifying the SI dysfunctions[8].

Management of the SI joint dysfunction is done by various non operative approaches includes intra-articular injections, radiofrequency neurotomy, prolotherapy and physiotherapy measures includes modalities like TENS, Ultrasound therapy and pelvic stabilization exercises, manual techniques, massage, aerobic exercises and therapeutic exercises[9]. The initial step in the treatment of sacroiliac joint syndrome is reducing the pain with NSAIDs and ice. Once the pain is relieved, it is important to emphasize the need for ambulation using an assistive device, and begin

physical therapy or some form of exercise[10].Establishing management guidelines for the SI joint disorders were depends on the various etiological factors, currently there are no guidelines exists[11]. However the dysfunctions are well managed by the symptomatic management with some biomechanical modifications by the physiotherapists.

A high portion of the SI joint dysfunctions were referred to the physiotherapists by the clinicians, but there are no evidences or practice guidelines to guide the therapist who take care of the patients. However there is no clear understanding of what constitutes best practice in the management of SI joint dysfunction who visit the private clinical setup. The purpose of the study was to investigate the physiotherapist perception of best practice in managing SI joint dysfunctions in the private clinical settings.

METHODOLOGY

A qualitative, descriptive approach was used to explore the physiotherapist perception of best practice in managing SI joint dysfunction. This study uses focused ethnographic approach. Semi structured interview were conducted with the selected clinical physiotherapists.

Guide was developed based on the literatures and with the clinical experience of the investigators and consultation with the specialists. Open ended questionnaire format allowed the researcher to avoid posing leading questions in order to obtain therapists true perspective[12]. Questions were designed to allow the participants to describe their thinking on best practice methods in handling SI joint conditions. Clinical therapists were encouraged to share their thoughts, feelings, insights, and behaviors related to their perception of the best practice in physiotherapy population. At the end of the interview each participants was given an opportunity to share any additional comments and thanked them for the time they spent. The ultimate goal of the qualitative study is to gain insight into the phenomenon being studied. For the purpose it was anticipated that saturation would be reach after interviewing 30--40 participants[13].

Participants in this study were private clinical physiotherapist who works or owns a private physiotherapy clinic for at least 5 years and handling musculoskeletal conditions.

They were involved in various professional development activities like conferences, seminars and continuing medical educations. The participant also has knowledge on research activities and reading current literatures. All the participants were recruited through purposive sampling method. Specific individuals were selected based on their extensive experience with patients with SI joint dysfunctions. 40 participants were selected for the study. A snowball sampling method was used where by the initial participants contacted were asked to recommend others who might match the criteria[13].

Initial contacts were taken from the medical guide book and the objectives, requirements and details of the study were explained and an information letter and consent form was sent by e-mail or whatsapp. If the physiotherapist consented to participate a suitable interview time and the convenient meeting location was arranged.

Face to face interview was organized; every interview was lasted for 40-60 minutes and was conducted by one of the two investigators, who were trained in conducting qualitative interviews prior to data collection process. The interview guide was not provided to participants in advance as the goal was to discover their unedited, unpracticed and non collaborative views. The interview took place from February 2018 through July 2018, with the consent of each participant, interviews were audio taped. The investigators also took field notes before, during and after the interviews, all the notes were documented. The investigators first asked participants what best practice means in general and then asked about the application of the best practice in SI joint dysfunction patients.

Once the data were collected the audio tapes were transcribed. The information's were transcribed and field notes were read and studied intensively as further data were collected in order to identify key ideas and recurrent themes. Responses to open-ended questions were systematically grouped and coded based oncontent[14].

An inductive coding scheme was developed as the transcripts and field notes were read. Unmarked text was coded line by line and the similar words found in the text were grouped termed as axial coding[15]. Similar codes were clustered together to generate theme/ concepts. Reading larger blocks of text using the compare-contrast method was another approach used to identify the themes[16]. Independent assessment of transcripts by an additional researcher ensures credibility and conformability. Rigour is ensured by systematic record keeping, team analysis of the data and diverse data sources[15].

RESULTS

Forty Clinical physiotherapists from various private clinics were included in the study participants were 24 males and 15 females with the mean age of men is 31.96 ±3.68 and female is 29.01±2.59 years. Experience was 9.23±1.73 years and having master degree in physiotherapy.

The themes which were selected in the study were 1) Choice of modalities 2) Patient center care 3) Resource utilization 4) Inter professional consultation 5) Referral

1) Choice of modalities

Clinical physiotherapists identified that they have different choice of modality in handling the SI joint dysfunction patients. Most of the participants have selected TENS as their choice in managing pain in the SI dysfunction. Few therapists have suggested that if the case is chronic, they opt Short wave diathermy as their management, whereas out of 40 clinical physiotherapists 35 participants recommended TENS as the best choice in managing the SI dysfunctions. Following the modalities exercises were initiated to the patient to maintain the pain relief as well as to improve the functions.

"My choice of modality is always TENS, since patient comes with the pain my first thing is to reduce it. I found in my personal experience that TENS works better in reducing the pain in the first sitting itself, patient also comfortable with the choice of selection of modality".

Exercises are the adjunct to the physical modalities, once the patient has reached the comfortable pain tolerance levels then the exercises were prescribed.

"My opinion I found that exercises plays an important role in reducing the pain as well as maintaining the well being. Education of appropriate exercises and making the patient to do the exercises are the integral part of the rehabilitation".

2) Patient center care

All the participants identified patient centre care as their important in best practice. Physiotherapist has reported that their area of focus is on the pain management and they will be much cautious on the components. Having patients play an active role in the rehabilitation was believed to optimize recovery within the shortest period of time. Therapist also indicated that they work to gain understanding of the patient's condition as well as tries to identify the cause of the SI dysfunctions.

"I always listen to the patients and try to identify the concerns and their details about the condition very clearly. I always plan to do the best outcome for the patients which it also involves them in the plan of care"

Another component of patient centered care involves the patient education about the condition and self management instructions.

"I am looking into the plan of care for the patients by understanding their views on the condition, I try to educate the patient about the condition and give strong report on the home advices and the self help measures"

3) Resource Utilization

Utilization of the resources are one of the major concern in clinical physiotherapists, unlike hospitals they don't have a larger space for the rehabilitation and accommodation of various new equipments. Clinical therapist are manage to run their clinics with the existing physiotherapy equipments, however few therapist tries to buy the newer equipment which is focused on the patient care.

"I have to use the resources in my clinics well as per the patient needs, if patient asks for the more sophisticated equipments I will make sure to clarify the queries of the patients. Sophisticated equipments or the modern technology tools don't give the best practice where as the knowledge of the therapist on the particular condition gives the best results".

Few clinical therapists noted that achievement of the outcomes reflects the best practice in the management of SI joint dysfunctions.

"Selected outcomes are there in our clinics which enhance the best practice, the pain assessment, range of motion or the muscle power are predominantly assessed. Some outcomes which require special tools or the skills were not been selected by us, instead we go for the best tools with the resources available as well as focuses on the best tool for measuring the outcomes ".

Physiotherapists focus on the integrated care with smooth transition along with the entire continuum of the care.

4) Inter professional consultation

Clinical Physiotherapist always has strong interpersonal communication with the doctors as well as with the counterparts. Doctors who refer the patients should be reported well by the clinical therapists. The therapists also explain the way of improvement and also give a clear picture on the patients' status to the referring doctors.

"During the meeting we usually discuss about the uncommon conditions which can create lot of awareness to the other practicing therapists. Consulting with the referring doctor gives a clear image about the patient as well as the doctors opinion about the patient. We are able to track the doctors' choice of management in these conditions"

Many times the referral doctors will not be able to write down the appropriate care for the SI dysfunctions. Sometimes the doctors would do mis-diagnosis as low back pain instead of the SI symptoms[17].

"Speaking to the referral doctors would also help them to write and explain the appropriate management which would be given by the physiotherapists, they would be confidently telling the patient that these are the measures to be done by the physiotherapists as well as they would be adding that physios are the best in dealing such problems. This would thereby produce confidence in the patients and they trust physiotherapists better.

A clear communication with the inter professionals would benefit the patients as well as the therapists, which would make them to practice easier.

5) Referral

Referral is integral part of the clinical practice, physiotherapist who receives the patients from various

referring doctors. So it is mandatory for every physiotherapist to prove that he gives the best practice guidelines and making patient comfortable.

" In my opinion once the patient comes with the referral slip the patient has to be taken extra care, since he is the one who conveys my treating skills and the treatment effectiveness to the doctor so that I will receive many referral in near future. These patients do indirect marketing for us, so giving the best treatment for these patients is at most important ".

DISCUSSION

The Primary objective of the study was to explore physiotherapist's perception of best practices in managing SI joint dysfunctions in private clinical settings. The private clinical physiotherapist has to give the best guidelines for the SI joint dysfunctions when they visit their clinics. Best practice is meant to be the practice which receives the best evidences in managing the SI joint dysfunctions. Evidences help to synthesis the knowledge generation, adopt the best clinical guidelines and integrate the current research to achieve the better results in the patients.

In interview with the clinical physiotherapists which reveals that how physiotherapist decide the management program for the SI joint dysfunctions, it also helps us to identify the perception of the best practice provided by various private clinical physiotherapists.

Private clinical physiotherapist provide a much better care for the patients their choice of modality with SI joint pain was TENS and they are able to rationalize the effectiveness of the treatment by their documentations and report writings. They also have a good collaborative relationship with the other inter professionals and have healthy discussions with them. The choice of modalities and the exercise programs were elaborately discussed with the referring doctors as well as the peer members.

Clinical physiotherapist have identified that the role of modalities in managing the SI Joint dysfunctions. Literatures suggest that TENS has produce pain reduction in the SI dysfunctions[18], it blocks the pain transmission signals and reduce the over activation of the nerves and reduces the pain. Many therapists suggest that patients feel comfortable on application of the TENS and it help to subside pain when compared with other modalities[11].

Participants have identified the effectiveness of exercises in the SI dysfunctions. Effect of exercises was described in various literatures, there was a delay of the muscle contraction that cause alteration in the lumbopelvic stability and may disrupt the load transference in the pelvis[19]. Physiotherapist always uses the lumbar stabilization and the pelvic floor strengthening to correct the muscular imbalance in the SI Joint dysfunctions. The exercises help to lengthening of shorten soft tissues and which lead to hypomobility and increased stresses on the articulations[20].

Clinical therapist also apply joint mobilization or manual therapy techniques, they also added that these techniques would improve the patients well than the ordinary or traditional way of treatment. They also added that a lot of practice is much needed prior to apply it over the patients. Manual therapy for the SI joint also plays an important role in improving the function in SI joint dysfunctions. The manual therapy helps to restore the normal mechanics of the joints[21], application of the passive joint mobilization produces selective stretch to the contracted tissue without damaging the adjacent tissues and it will correct the biomechanical and soft tissue dysfunctions. Mobilization would also cause dorsal horn activation thereby reduces the painful stimulus and breaks the pain spasm pain cycle[22].

Private clinical physiotherapist is able to apply lot of therapeutic techniques and they held responsibility for the improvement of the patients. They are spending lot of effort on improving the knowledge and skills on better client management.

This study explored perception of best practice in SI joint dysfunctions by the various private clinical physiotherapists, but the selection of the therapists were limited. Environment and the patients handled by the therapist may also affect the perception of best practice. Few other restrictions would be seen are the private clinical therapist were, although they are interested in certain topics where they are not attending due to money, time and work schedules. Few therapists would find improvisation of knowledge is purely by the Internet sources.

CONCLUSION

Best practice of the SI joint dysfunctions by the private clinical physiotherapists is not much documented in any of the studies whereas this study brings an opening on the best practice of SI joint dysfunctions. Creating best practice guidelines not only for the good care to the patients but also the therapist will find a solution to solve their dilemma on treatment modalities. This study would create an extended scope of service to the physiotherapy community for the best practice in managing SI Joint dysfunctions.

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REFERENCES

1. Erhard R, Bowling R: The recognition and management of the pelvic component of low back and sciatic pain. Bull Orthop Sect Am Phys Ther Assoc. 1977; 2(3): 4-15.
2. Laslett M. Evidence based Diagnosis and Treatment of the Painful Sacroiliac Joint: A Clinical Perspective. J Man Manip Ther. 2008; 16 (3): 142-52. doi: 10.1179/jmt.2008.16.3.142.
3. DePhillipo NN, Corenman DS, Strauch EL, Zalepa KL. Sacroiliac Pain: Structural Causes of Pain Referring to the SI Joint Region. Clin Spine Surg. 2019; 32(6): E282-E288. doi: 10.1097/ BSD.0000000000000745.
4. Hancock MJ, Maher CG, Latimer J, Spindler MF, Mcauley JH, Laslett M, et al. Systematic Review Of Tests To Identify The Disc, SIJ Or Facet Joint As The Source Of Low Back Pain. Eur Spine J. 2007; 16(10): 1539-50. doi: 10.1007/s00586-007-0391-1.
5. Fortin JD, Kissling RO, O'Connor BL, Vilensky JA, Sacroiliac joint innervations and pain. Am J Orthop (Belle Mead NJ). 1999; 28(12): 687-90.
6. Raj MA, Ampat G, Varacallo M. Pain, Sacroiliac Joint. [Updated 2018 Oct 9]. In: StatPearls [Internet]. Treasure Island (FL): Stat Pearls Publishing; 2018 Jan-. Available from: https:// www.ncbi.nlm.nih.gov/books/NBK470299/.
7. Thawrani DP, Agabegi SS, Asghar F. Diagnosing Sacroiliac Joint Pain. J Am Acad Orthop Surg. 2019; 27(3): 85-93. doi: 10.5435/JAAOS-D-17-00132.
8. Hansen HC, McKenzie-Brown AM, Cohen SP, Swicegood JR, Colson JD, Manchikanti L. Sacroiliac joint interventions: a systematic review. Pain Physician. 2007; 10(1): 165-184.
9. Forst SL , Wheeler MT, Fortin JD, Vilensky JA. The sacroiliac joint: anatomy, physiology and clinical significance. Pain Physician. 2006; 9(1): 61-7.
10. Rupert MP, Lee M, Manchikanti L, Datta S, Cohen SP. Evaluation of sacroiliac joint interventions: a systematic appraisal of the literature. Pain Physician. 2009; 12(2): 399-418.
11. Al-Subahi M, Alayat M, Alshehri MA, Helal O, Alhasan H, Alawai A, et al. The effectiveness of physiotherapy interventions for sacroiliac joint dysfunction: a systematic review. J Phys Ther Sci. 2017; 29(9): 1689-94. doi: 10.1589/jpts.29.1689.
12. Britten N. Qualitative interviews in medical research. BMJ. 1995; 311(6999): 251-3. doi: 10.1136/bmj.311.6999.251.
13. Morse, J. M. Designing funded qualitative research. In Denizin, N.K. & Lincoln, Y.S, Handbook of qualitative research (2nd Ed). Thousand Oaks, CA: Sage. 1994.
14. Majumdar S, Luccisano M, Evans C. Perceptions of physiotherapy best practice in total knee arthroplasty in hospital outpatient settings. Physiother Can. 2011; 63(2): 234-41. doi:10.3138/ ptc.2010-09.
15. Clifford C, Open Learning Foundation. Qualitative research methodology in nursing and health care. Edinburgh: Churchill Livingstone; 1997.
16. Bogdan R, Biklen S. Qualitative research for education: An introduction to theory and methods. 4th ed. Boston: Allyn & Bacon; 2003.
17. Polly DW, Cher D. Ignoring the sacroiliac joint in chronic low back pain is costly. Clinicoecon Outcomes Res. 2016; 8: 23-31. doi: 10.2147/ CEOR.S97345
18. Bharti N, Arunmozhi R, Maneesh A, Pooja A. Effectiveness of therapeutic interventions in sacroiliac joint dysfunction: A systematic review. Int J Physiother Res 2016; 4(3): 1484-8. doi:10.16965/ijpr.2016.111.
19. Hungerford B, Gilleard W, Hodges P. Evidence of altered lumbopelvic muscle recruitment in the presence of sacroiliac joint pain. Spine(Phila Pa 1976) 2003; 28(14): 1593-600.
20. Bindra S. A study on the Efficacy of Muscle Energy Technique as compared to Conventional Therapy on Lumbar Spine Range of Motion in Chronic Low Back Pain of Sacroiliac Origin. Human Biol Rev. 2013; 2(4): 336-348.
21. Kamali F, Shokri E. The effect of two manipulative therapy techniques and their outcome in patients with sacroiliac joint syndrome. J Bodyw Mov Ther. 2012; 16(1): 29-35. doi:10.1016/j.jbmt.2011.02. 002.
22. Vaidya SM. Sacroiliac Joint Mobilization versus Transcutaneous Electrical Nerve Stimulation for Pregnancy Induced Posterior Pelvic Pain- A Randomized Clinical Trial. J Clin Diag Res. 2018; 12(1): YC04-YC07.

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