

Need to Adopt a Patient Centered Approach for Obtaining Favourable Results of Non-Pharmacological Interventions among Knee Osteoarthritis Patients in Out Patient Department Settings

Meenakshi Sharma¹, M.S. Dhillon², A. Singh³, S. Kaur⁴

¹PhD (Public Health), PGIMER, Chandigarh.

²Professor & Head of Department, Department of Orthopaedics & PRM, PGIMER, Chandigarh.

³Professor, Department of Community Medicine, PGIMER, Chandigarh.

⁴Lecturer, NINE, PGIMER, Chandigarh.

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Abstract

Knee osteoarthritis (KOA) is one of the common causes of disability. Long-term effects of early to moderate KOA can be managed through non-surgical interventions. But due to overcrowding in Orthopaedic OPDs, doctors don't have enough time for explaining non pharmacological interventions (NPIs) in detail to KOA patients. Hence, desired impact of NPIs is not evident among KOA patients. This study elaborates the degree of patient centered approach adopted during doctor patient interactions in the Orthopedics OPD of a tertiary care hospital of India. The study was conducted in 2012-2015. Eligible KOA patients (N=123) were divided into two groups for the RCT. The patients aged 40-65 years of either gender without significant deformity or co-morbidities needing surgery (e.g. meniscus tears etc) were enrolled. An intervention room was established in Physical and Rehabilitation Medicine (PRM) department of the hospital. Doctors of Orthopaedics and PRM departments were requested to send grade 1, 2, 3 KOA patients as per Kellgren Lawrence scale to intervention room after initial work up. A referral system was established for this. Interviews of the diagnosed patients (N=31) suffering from mild and moderate KOA were conducted. Textual analysis was done for qualitative data. Patients are unable to comprehend 'capsule form' of advice provided in OPDs. This results in non-adherence. For better outcomes physicians must talk to patients. They need to understand the patient's underlying concerns, against their cultural background, and life history. Hence, patient centred approach is needed for obtaining the desired impact of NPIs in KOA patients reporting to Orthopaedics OPD in Indian hospitals.

Keywords: Knee, Osteoarthritis, Non pharmacological interventions, patient centered approach

Introduction

Knee osteoarthritis (KOA) is one of the common causes of disability. Intractable pain is the most common symptom

of KOA.¹ Quality of life (QoL) of KOA patients significantly deteriorates with pain and loss of mobility causing dependence and disability.²

Corresponding Author: Meenakshi Sharma, PhD (Public Health), PGIMER, Chandigarh.

E-mail Id: mnxmph@gmail.com

Orcid Id: <https://orcid.org/0000-0003-1339-1429>

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In view of the chronic and intractable nature of the disease a lot of regimes have been advocated for KOA. Treatment is aimed primarily at symptom relief. Focus is on optimizing the quality of life of patients through improvement in joint mobility and function.³ Joint replacement surgery is a costly option for people with severe KOA who are unresponsive to non-surgical management. However, long-term effects of early to moderate KOA can be managed through non-surgical interventions.⁴ This includes use of non-pharmacological interventions (NPIs) comprising of patient education on life style modifications, a set of exercises, weight reduction, meditation etc. These are often used in conjunction with a pharmacological regimen.

In western countries, many RCTs have been done on NPIs. Many treatment guidelines have been prepared and are being used. In fact, many countries have their own well established and elaborate KOA management protocols which are regularly updated e.g. National Institute of Health and Clinical Excellence (NICE) of UK⁵, European League Against Rheumatism (EULAR) guidelines of Europe⁶ and American College of Rheumatology guidelines (ACR) of United states.⁷ Even evidence grade of various components of recommended interventions are systematically documented. All such information including exercise videos is available in public domain on the internet.

However, surprisingly, such an effort is lacking in India. No standard operating procedures (SOP) have been developed for KOA management.⁸ Even there is lack of consensus on the set of exercises to be done by KOA patients. Different consultants prescribe different set of exercises to KOA patients. There are many gaps in the information available for general public for KOA patients about India.

Moreover, due to overcrowding in Orthopaedic OPDs, doctors don't have enough time for explaining NPIs in detail to KOA patients. In the current scenario, KOA patients are seen first by Orthopaedists in OPD. Necessary investigations are advised, prescription is given and then the patient is referred to physiotherapy where patients are advised exercises for muscle strengthening without giving sufficient time. But generally, they forget the correct way of doing these exercises. Often, they do not have enough motivation or enthusiasm to continue with the exercises.

It is also not easy for patients to remember and understand the lifestyle modifications advised to them in crowded OPDs. In fact, KOA patients find it hard to incorporate changes in their lifestyle as it requires a lot of effort and commitment. This results in non-adherence of KOA patients with the advice given. Consequently, patient loses faith in the treatment due to less healing. Hence, desired impact of NPIs is not evident among KOA patients.

To address these issues there is a need to change in the way Orthopaedics OPDs function in hospitals. Therefore,

current article elaborates the degree of patient centered approach adopted during doctor patient interactions in the Orthopedics OPD of a tertiary care hospital of India. This article deals with verbatim responses of the patients enrolled in the Randomised Controlled Trial (RCT) entitled "Comparative impact of non-pharmacological interventions for patients suffering from knee osteoarthritis at a tertiary care hospital" conducted in 2012-2015.

Methods

The study was conducted during 2012-2015 in a tertiary care hospital of India. Eligible KOA patients (N=123) were divided into two groups for the RCT. The patients aged 40-65 years of either gender without significant deformity or comorbidities needing surgery (e.g. meniscus tears etc) were enrolled. An intervention room was established in Physical and Rehabilitation Medicine (PRM) department of the hospital. Doctors of Orthopaedics and PRM departments were requested to send grade 1, 2, 3 KOA patients as per Kellgren Lawrence scale⁹ to intervention room after initial work up. A referral system was established for this.

Interviews of the diagnosed patients (N=31) suffering from mild and moderate KOA were conducted. Interviews were held in the intervention room in the PRM department of the hospital. Only the interviewee and interviewer were present during the interview. Textual analysis was done for qualitative data.

Ethics Statement

All patients gave their written informed consent to participate in the study. The study protocol was approved by the ethics committee of the institute.

Results

Overall, 143 eligible patients were referred from Orthopaedics OPD. Out of these, 20 patients were excluded. Thus, 123 patients were enrolled in the study. Overall, 75 out of 123 patients enrolled in this study had moderate to severe pain initially. Out of these patients (n=30) were interviewed. Following themes emerged after transcription of the rough notes taken during In-depth interviews.

Insufficient time devoted by doctor

Many patients reported that they were not satisfied with the time given to them by the doctors in the OPD. They considered that it amounted practically to nothing and that the interaction was limited to less than two minutes for explaining exercises.

"Doctor ne 2 minute to vi ghat time ditta, Meri gal bhi dhayn naal nahi sunni" (Doctor attended me for less than two minutes. He didn't listen to me attentively)

“Uperwalon ne nechebheja ,nechewalon ne 2 minute vich exercises dusditiyan” (Orthopaedists send me to physiotherapists and they told me exercises in 2 minutes).

Mere sawalon da jawab nahi dinde, Kehnde ki mainu vaham hain” (*Doctor does not answer my questions and told me that I am superstitious*).

Unclear/Lack of explanation and reference material for NPIs in the OPD

Most of the patients mentioned that advice on losing weight was given to them in OPDs. But they reported that details were not provided to them. They also told that no clear explanation was provided to them about various modalities for reducing weight. The doctors did not modify their advice even if they had some comorbidities.

None of the participants received reference materials on NPIs. Most of them reported that it would have been useful for them to have written information on NPIs. One patient reported that diet chart given to her mentioned ‘tofu’. The soys product was alien to her. *“Upperwale kehn de Tofu kao..eh tofu kyahai”* (Dietician told me to have tofu. What is this tofu?).

A female patient pointed out that the leaflets with standard advice are of no use to them.

“Inho ne bhaar ghatane ke lieay khaha hai, batiani kaise ghatega” (Advised for weight reduction. But didn’t tell how to reduce).

Exercises yaad rakhni aukhi hai” (Difficult to remember all exercises). “Koi kagaj tei lekh ni dende kehri varjish karni” (Doctors don’t write instructions on a paper).

Lack of customisation of NPIs

A patient told that similar diet chart was given to every patient by dieticians.

“Dietician ne chappa huya chart diya tha, jisme khane ke bare main tha”, “sab nu same parcha ditta” (Dietician has given printed chart article which tells what to eat and what not, same chart was given to all).

“Exercise naal dard hundi hai” (It pains when I do exercises).

“Eh garmi sardiyan dono vich 10 minute da sekka lende. Garmyian vich theek par Sardiyan vich jado change lagan lagda, machine band kardende” (They give therapy for 10 minutes in both summer and winter. I find it should be more in winter).

“Towel leg ke neche rakh kar exercise karne ko bola hai, par exercise se shuru main dard hota hai” (I been advised to

keep towel under knee and do exercises regularly. It pains so I have stopped but restart it gradually).

“Physiotherapist has advised knee cap. Par market mai mere size de nai milde” (I don’t get knee cap of my size in the market).

Non-involvement of family in the OPDs

A female patient told that if her husband was involved during the consultation by doctors and it could have been lot easier for her to comprehend the NPIs.

“Mujhe godhe ki vargish bataye hai ki dono uthane hai, paer siddha karna hai. Mainu ta samaj ni aaiya, mere gharwalon nu ander ni jandita” (I have been advised some exercise of raising my leg. I couldn’t understand and they didn’t allow my husband to accompany me).

“Koi karwan wala bhi chahida” (Someone should remind me to do exercises everyday).

Middle age people doing exercises not the ‘in thing’, not a social norm

Feasibility issues were cited by patients for non-compliance with dietary advice. They reported lack of support from family, rather they were ridiculed. Patients explained that they would feel motivated to follow NPIs if they could get support from family.

“Nayane hasde ne ki baba sadai ho gaya” (My grandchildren make fun of me when I do exercises. They say I’ve gone mad).

Patients ‘Pill for every ill’ mindset dominates; Lack of patience for long term measures like life style modifications

The “pill for ill” mindset is deeply engraved in the minds of patients. One patient demanded some tablets for reducing weight instead of making efforts to change lifestyle.

“Koi bhaar ghatan vaste dawai diti ni” (No medicine for reducing weight has been given).

Patients reported lack of patience for performing exercises as it takes long to perform.

“Bada time lagda exercise karane nu” (It takes long to do exercises).

Patients find it difficult to modify their habits. *“Sardiya nvich kha pi ho janda dhand badi lagdis hai”* (I take alcohol and non-vegetarian in winter. It is very cold).

Mainu keha ki “chappati band kardo”. Par phulkebina

main rehnisakdi (I have been told not to eat chapatti. But I cannot live without chapatti).

Many patients insisted that the dietary advice was not effective. Rather it was the self determination that could actually help. Mostly women suffering from KOA, reported their belief of impossibility of losing weight. Many attributed this impossibility to genetics, age and menopause.

Bhaar ghat da ni, kia karaiya. Hun Nu ta banan toh rahi jo dietician ne keha hai. (Weight reduction is not possible (Who will cook different food for me. At least daughter in law cannot do it).

Mainu dama hai. Inhaler len di han" (I am an asthmatic patient. I take steroids and inhaler. Cannot reduce weight).

"Mujko thyroid hai. Isme weight badta haia pr doctor keh re kam karo" (I am suffering from hypothyroidism. Difficult for me to reduce weight).

Contradictory and lament lack of consistency in advice given by different doctors

Many patients reported a lack of consensus between Orthopaedists, PMR specialists and physiotherapists on NPIs. Many patients commented on the negative opinions of doctors on alternative therapies.

"Uperwale garam seka kehnde ne, physiotherapist thanda kehde hun; main kisdi gal suna" (Orthopaedists recommend hot fomentation and physiotherapist recommend cold pack; whom should I listen to?). *"Humein Yeh bola gaia ki hor koi pathy kuchch nahi kar sakti; dawai khao"* (Doctor told me that any other pathy/alternatives therapies like traditional medicine will not work; take the prescribed medicine).

"Doctor sahib ne keha se ki exercises roj karan naal operation 65 saal tak tala jasak da hain". Private hasptal ne ta mainu operation vaste keh ditte si". Mainu change lagya ki sahi rasta dikhya" (Doctor advised me that I can delay surgery till 65 years of age if do exercises on routine basis. Private hospital told me to go for surgery. I felt happy that right path was shown to me).

One patient reported that there is lack of consistency as different physiotherapists teach different or tell different way of same exercise.

"Har bar nawa physiotherapist nawi exercise das dinda, kehdi karan, pehli waliya Hunwali" (Every time new physiotherapist tells me new exercise. Which one I should do).

Difficulties faced in hospital

Patients complained about the long waiting time to access healthcare services in public sector.

"Paise jama karan vaste line vich khada hona penda. Us to baad time nihi milda" (We have to stand in queue for depositing money. It is difficult to get appointments).

Bahr private karwao ta bada mehngahai, pgi vich rush bada zadahai" (It is very costly in private and here in PGI, there is very rush).

Discussion

Knee osteoarthritis (KOA) is a chronic disease. In India, KOA patients first consult local medical practitioners whose main prescription is painkillers and Vitamin D. When they fail to get relief from symptoms, they eventually reach Orthopaedic OPD of tertiary care hospitals.

Many studies have suggested that NPIs have a potential to alleviate the symptoms especially pain.¹⁰ This is the first line of therapy in hospitals. But obtaining a favourable impact of NPIs depends on combination of many factors. But crowded OPDs in Indian hospitals do not allow this to happen. In India, rushed up approach is followed by doctors to quickly dispose the patients. Studies have reported that in India, doctors see patients for barely 2 minutes which is insufficient for explaining NPIs.

Basically, NPI for KOA involves lifestyle modifications. Patients need to change their way of living, their diet posture, physical activity levels etc. These changes are not easy to implement. They are accustomed to their erstwhile routine. Any change looks disruptive to them. Such advice on requisite changes is given by doctors in a hurried way. A main source of patient's dissatisfaction reported in this study that they were not clearly explained about NPIs. Most patients often reported inadequate interactions with the doctors.

Explanation of exercises, diet counselling requires sufficient time for patients to assimilate, absorb and implement the given advice for lifestyle modifications in their routine. Patients are unable to comprehend 'capsule form' of advice provided in OPDs. This results in non-adherence. Thus, desired effect of prescribed NPI fails to manifest.

Patients are already in a confused state of mind in any tertiary care hospital of India. They have to run around between various departments (Orthopaedics, Physical Medicine and Rehabilitation, Radiology, laboratory, dietetics) for test, investigations, NPIs etc. They are overawed by the alien atmosphere of sophisticated instruments, crowd and conglomeration of a motley crowd of doctors, nurses and technicians. They remain afraid and anxious. They also have to face serpentine waiting queues at never ending services of counters. In such a scenario, the patients focus is less on the advice given. They bogged down by the difficulties faced by them in hospital *"Paise jama karan vaste line vich khada hona penda. Us to baad time nihi milda"* (We

have to stand in queue for depositing money. It is difficult to get appointments).

Till mid-20th century doctors dominated their interactions with the patients.¹¹ In erstwhile “paternalistic” doctor patient relationship, patients were happy to play a dependent/passive role. They had external locus of control and considered doctor as their “God”. In the contemporary 21st century, the patient centred care seeks to change the doctor patient interactions through a relationship of “mutuality”.¹²

In contemporary hospitals, social prescribing has emerged as a relatively new holistic approach to wellness in which patients are encouraged to fit their lifestyle, interests, and special needs in ways that complement any pharmaceutical prescriptions.^{13,14} This highlights the concept of patient self-care with ‘information prescriptions’ supporting them to take greater control of their own health. This is happening in Orthopaedics also. For example, even a “Society for Patient Centred Orthopaedics” has been floated in Bedford.¹⁵

But it is easier said than done. In Indian hospitals, due to high patient load this doesn't seem to be happening. There is discordance between the perspectives of provider and users. In the current study it was found that there was a clear mismatch between what the patients expected from doctors in OPD treatment, and what they actually received.

In Indian hospitals even if the provider wishes to delegate the responsibility of self-care to patients; patients are not interested. They have lower self-efficacy perceptions. They expect quick magical relief. They lack patience. They are not accustomed to give emphasis to self-care and its importance. This was clearly revealed in verbatim comments of the respondents “*Main ta hi shurutoh hi enimoti han. Kitho ghat jana mera bhaar*” (I am obese since childhood. How will I reduce my weight?)

According to Bandura's social cognitive theory; self-efficacy is one of the most powerful predictors of health behaviour.¹⁶ In order to perform NPIs, patients must value their health; believe that current lifestyle poses a threat to their health. Patients must believe that adopting NPIs will reduce the KOA pain and that they are capable of performing the behaviour.

As revealed by their responses, many patients seemed to give more value to personal comfort rather than to a willingness to undergo a bit of hardship for reducing weight and exercises. *Mainu keha ki “chappati band kardo”. Par phulkebina main reh ni sakdi* (I have been told not to eat chapatti. But I cannot live without chapatti).

According to ‘health locus of control’ (HLC) theory, the degree of KOA patients' belief on the control of their life can be related to relief in symptoms. Adherence with advised

treatment will be improved when patients have a high ‘internal’ HLC. An internal locus of control suggests that positive health results from one's own doing, willpower or sustained efforts. In contrast, an external locus of control is marked by belief in the influence of fate, powerful others, or supernatural occurrences upon one's health.¹⁷

Generally, in OPDs a fixed set of exercises for KOA is prescribed to all the patients. If any patients have any problem/difficulty in doing this, little allowance is made to modify the set of instructions. They lose faith and fail to adhere with the advice given. Customisation for NPIs is also important, as ‘one size fit all’ approach may not work for patients. Hence, a flexible approach needs to be adopted and customization needs to be done for every patient.

Compliance with an exercise protocol and weight reduction advice in KOA management is a major challenge for both clinicians and patients. But it is not a simple thing. Many KOA patients in this study reported that while performing exercise at home they were being ridiculed, “*Nayane hasde ne ki baba sadai ho gaya*”. (My grandchildren make fun of me when I do exercises. They say I've gone mad). Elderly people doing exercises are not considered as “in thing” in Indian society. It is against subjective norm by family members and requires a significant behavior change. This is something their family members are not accustomed to observe at home.

As per BASNEF model of behavior change¹⁸, ‘subjective norms’ affect the compliance of a person with exercise regime. Therefore spouse, family members need to be involved in training of KOA patients for NPIs. Involvement of family members will have a good impact on self-efficacy and also on improving compliance. In such a scenario, it makes a sense to promote group exercises with involvement of family members in OPDs. training and exercise training can improve physical fitness, pain coping, and self-efficacy in KOA patients. Keefe et al also reported that an intervention using spouse-assisted coping skills training and exercise training can improve physical fitness, pain coping, and self-efficacy in KOA patients.¹⁹

The “pill for ill” mindset is deeply engraved in the minds of people. Popping pills looks far easier and convenient to patients than taking trouble to change their lifestyle or daily routine.

For making patients understand and comply with the prescribed life style changes, sufficient consultation time is needed from the doctors who need to listen to the problems of patients and counsel them accordingly. But this doesn't materialise in the crowded OPDs. Both patients and doctors feel a heightened sense of time pressure. Minimal time for doctor patient interaction implies less relating time. This leads to non-adherence.

Conclusion

Lately, there is a trend of secularization of medical care. Over last 15 years, globally, new concepts have emerged about doctor-patient interaction, viz. Patient and family-centered care, patient-as-person, social prescription, information therapy etc. There is focus upon active collaboration and shared decision-making between patients, families, and providers. This way the doctors are free to talk about lifestyle issues with patients. Thus, for better outcomes physicians must talk to patients. They need to understand the patient's underlying concerns, against their cultural background, and life history. Hence, patient centred approach is needed for obtaining the desired impact of NPIs in KOA patients reporting to Orthopaedics OPD in Indian hospitals.

Conflict of Interest: None

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