

Original Research

Attitudes and beliefs of patients and primary caregivers towards deprescribing in a tertiary health care facility

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Abstract

Background: Good prescribing practices form the essence of drug therapy for better patient care. The major aim of better prescribing is to improve rational prescribing. Deprescribing gained momentum in recent decades.

Objective: This study aimed to explore the attitude and beliefs of deprescribing among patients and their caregivers forming dyads in a tertiary health care facility.

Methods: Cross-sectional, questionnaire-based prospective study done for two months. Attitude towards deprescribing was assessed by using validated rPATD (revised Patient attitude towards deprescribing) questionnaire. Cohen's kappa coefficient was used to measure the agreement between the views of people and their caregivers forming dyads about medication cessation.

Results: 312 patients and caregivers (156 forming dyads) participated in the study. Among 156 patients, 25.6% were hypertensives & 21.2% had diabetes. 41.7% were between 36-50 years of age. Only 16.7% belong to the elderly age group. 2.5% were taking >5 medications. 43.6% of patients and 62.2% of caregivers were female. 51.3% of the patients were willing to stop one or more of their regular medicine(s) under the treating physician's advice, but 62% were satisfied with their current medicine(s). 33.4% were reluctant to stop taking medicines for a long time.

Conclusions: In our study, more than 50% of people and their caregivers were willing to try medication cessation under their physician's recommendation. There was moderate agreement between patients and their caregivers in the trial of medication cessation. Thus, the results obtained from this study may help towards improving rationalized prescribing practices in the institutional setup.

Keywords

Deprescriptions; Inappropriate Prescribing; Attitude; Personal Satisfaction; Health Knowledge, Attitudes, Practice; Patients; Caregivers; Surveys and Questionnaires; Cross-Sectional Studies; India

INTRODUCTION

Good prescribing practice forms the essence of drug therapy for better patient care. The major aim of better prescribing is to facilitate/improve the rational prescribing process. In addition to prescribing, the process of reviewing the prescribed drugs at appropriate times is indeed, felt like the need of the hour, as both polypharmacy/high-level polypharmacy with potentially inappropriate medications (PIMs) and therapeutic inertia, acts as barriers to patient compliance.^{1,2} PIM is defined as "a drug in which the risk of an adverse event outweighs its clinical benefit, particularly when there is a safer or more effective alternative therapy for the same condition is available".³ Although a certain level of polypharmacy cannot be avoided in situations where a patient presents with multiple comorbid conditions, a thorough knowledge of appropriate

prescribing is necessary to differentiate between the essentially required and the inappropriate ones at all stages of a disease. There are several barriers to rationalized prescribing. Prescribing the right drug and active monitoring of the prescribed medication forms the basis for pharmacotherapy, the failure of which may lead to polypharmacy (five or more drugs). Even though polypharmacy may not be avoided in patients with multiple comorbid conditions, however, the management of polypharmacy is one of the greatest challenges to treating physicians since the prevalence of polypharmacy is higher in the elderly age group (30% to 70%) and causes increased mortality and morbidity by increasing the risk of adverse reactions, inappropriate prescriptions, drug interactions, hospitalizations, costs, and death.⁴ It has been found that there is a higher prevalence (29.3%) of PIMs use among the elderly in the Indian context and such usage forms a major obstacle to pharmacotherapy in them.^{3,5,6} Therefore, caution is required in prescribing drugs, especially in the elderly, to reduce the morbidity and mortality attributable to medication use.

Deprescribing is defined as "the process of withdrawal of inappropriate medication supervised by a health care professional with the goal of managing polypharmacy and improving outcomes".⁷ It is the systematic process of identifying and discontinuing drugs in instances in which existing or potential harms outweigh existing benefits within the context of an individual patient's care goals, the current level of functioning, life expectancy, values, and preferences.⁸ It is otherwise called "withdrawal," "discontinuation," "pharmacolysis," "untrials," "prescription

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pruning,” and “prescription metabolism.” Deprescribing is not as simple as the interruption of a drug, but it contains a series of steps to be followed to improve patient outcomes in a rationalized way. According to Swetha et al, nearly 71.8% of Indian doctors agreed that deprescribing is beneficial for the patients.⁹ Scott *et al.* have suggested the 10-step conceptual framework to minimize the inappropriate medications in the elderly populations.¹⁰ Previously, deprescribing practices were restricted to avoid PIMs in the pharmacotherapy of chronic diseases like diabetes, hypertension in the elderly population. But, today, this topic is blossoming as an emerging trend in acute clinical care settings also. Thus, deprescribing inappropriate medications may add to the rationalization of drug therapy in different clinical situations.¹¹ A constant monitoring/supervision of the prescription medications with a thorough knowledge of assessing the individual medication requirement helps us to avoid the “repeat all” scenario in the minds of junior and senior practitioners. Thus, appropriate deprescribing helps us to prevent the concept of “clinical or therapeutic inertia” in hospital settings.

The deprescribing process includes identifying potentially inappropriate medication, prioritizing drug discontinuation, performing deprescribing, and monitoring the result.¹⁰ Thus, the first step in deprescribing is to know whether the patients are ready to deprescribe the drugs. Again, when the topic of attitudes and beliefs comes up, it varies with each individual. The attitude of the patient may differ from that of the caregiver. For example, it may be quite easy for the patient to take ten drugs, but it may be difficult for the patient caregiver to remind them to take the drug every day. It may also be vice-versa wherein it is a complaint for the caregiver but not for the patient. It becomes very important to analyze the various factors that might affect the attitudes and beliefs of patients towards deprescribing their regular prescriptions. The second step is to do a prescription audit, wherein we try to find out the rationale behind prescribing the drugs for a particular patient. Again it is in this step where we try to compare if the benefits outweigh the adverse effects or it is vice-versa. This is the step wherein the treating physician, the pharmacist, and the patient come together. The third is to prescribe an effective drug, considering the patient factors and the efficacy of the drugs. The fourth step is frequently reviewing the drugs. Finally, following up and setting up such a trend with the only view of ‘do no harm to the patient’ - ‘*primum non nocere*’.

Thus, deprescribing is a must in the clinical setup as it reduces the event of adverse drug reactions, improves patient compliance by incorporating rationale prescribing practices outweighing polypharmacy.¹²⁻¹⁴ There are numerous tools and algorithms developed with a focus on assessing the burden of PIMs in the elderly, which addresses the issue of reducing polypharmacy.^{6,15-18} On the other hand, there are tools to capture people's attitudes towards the option of medication cessation with the concurrence of the treating physician. One among them is the “revised Patients’ attitude towards deprescribing” (rPATD) questionnaire developed by Reeve *et al.*^{7,19,20} It captures the attitude and beliefs of patients/ caregivers towards the cessation of nonessential drugs in therapy. The validated questionnaire contains questions on belief in the

appropriateness of medication withdrawal, the perceived burden of their medications, concerns about stopping, and the level of involvement in medication management. Studies conducted in different countries have shown that the acceptance rates of deprescribing ranging from 33% to 82%.^{17,21} Even though the rate of acceptance of cessation of medications is relatively really high on a theoretical aspect, but the practical utility of it in a real-life situation is a questionable thing. Thus, this study was aimed to identify the attitude and beliefs of patients and caregivers forming dyads towards deprescribing (number of medications they were taking and their willingness to stop their medications) and to determine the major factors that influence the behavior of deprescribing among them. The results obtained from this study may help us to identify the potential barriers and enablers of deprescribing and provide suggestions towards improving rationalized prescribing practices in an institutional setup.

METHODS

Study design and settings

This study was conducted with the primary aim to identify the attitude and beliefs of patients as well as their caregivers towards deprescribing. Institute Research committee and Institute Human Ethics Committee approval were obtained before the conduct of the study. This was a cross-sectional, questionnaire-based prospective study conducted for two months from August to September 2017 in a tertiary health care facility in Puducherry. The Inclusion criteria include patients who were over 18 years of age and of either gender, diagnosed with chronic diseases like diabetes, hypertension attending the tertiary health care facility with at least one regular prescription medication, accompanied by any primary caregiver forming dyads. The primary caregiver is a person who currently acts as an informal caregiver for an adult and having any role in a family as a member of management of a friend's health and/or medications.²⁰ Exclusion criteria include those who were diagnosed with any psychiatric disorder and of the pediatric age group. Questionnaires with incomplete information were also excluded.

Sample size

The required sample size was calculated as follows: Required sample size = $4pq/L^2$ where p is taken as the prevalence of willingness to stop medications, p=92%, q=(100-92)=8%, L=allowable error as 5% of p=4.6, the required minimum sample size was found to be 278 (139 patients and caregiver search forming dyads) and anticipating a non-response, incomplete data collection, it was kept at 170 dyads each (340).

Data collection

Patients and their caregivers from Puducherry, who satisfies the inclusion criteria, were recruited for the study over a period of 2 months. The purpose and details of the study protocol were explained to each subject individually, and written informed consent was obtained. Data on demographic profile, prescription, and non-prescription medications and the use of complementary and alternative medicine (CAM) were collected in a separate proforma sheet. Attitude towards deprescribing was assessed by using a validated rPATD questionnaire (prior copyright



permission was obtained from the developer).²⁰ Two separate questionnaires with 22 questions for patients and 19 questions for caregivers were administered. It was an Interviewer assisted study, wherein the interviewer was trained to administer the questionnaire and elicit the response from both the subjects and their caregivers in a confidential area/manner. The questionnaire was translated into the local language and validated for an interviewer-administered survey of people over 18 years. We translated the original questionnaire into a Tamil version by certified bilingual experts from a professional translation agency. The questionnaire was then back-translated into the original English version by investigators separately. The investigators decided on the final version of the translated questionnaire. The subjects were given an option to complete the questionnaire either in English or the Tamil version of their choice. The revised Patients' Attitudes Towards Deprescribing (rPATD) questionnaire contains questions related to the following four factors: belief inappropriateness of medication withdrawal (Appropriateness factor), the perceived burden of their medications (Burden factor), concerns about stopping

(Concerns about stopping factor), and the level of involvement/knowledge in medication management (Involvement factor). In addition to these factors, there were two global questions related to medication use. All the replies to the questions in the questionnaire were scored with Likert scaling (strongly agree=5, agree=4, unsure=3, disagree=2, strongly disagree=1), and the highest total score indicates a more significant perceived burden, concerns about stopping and involvement in medication use. On the contrary, questions in the appropriateness factor were reverse-scored to represent a greater belief in appropriateness.

Statistical analysis

Data was entered in MS Excel version 2012 and analyzed using SPSS software version 16. The demographic profile was analyzed using descriptive statistics. Continuous variables were expressed as Mean (SD). Categorical variables were expressed in percentages or frequency. Analysis of agreement between participant characteristics and their responses was determined using the kappa coefficient. The comparison of responses between the

Table 1. Demographic characteristics of patients and primary caregivers

Demography; n(%)		Patients (n=156)	Caregivers (n=156)
Gender	Male	88(56.4)	59(37.8)
	Female	68(43.6)	97(62.2)
Age (yrs)	19-35	17(10.9)	36(23.1)
	36-50	65(41.7)	87(55.8)
	51-65	48(30.8)	26(16.7)
	>65	26(16.7)	7(4.5)
Marital status	Single	16(10.3)	21(13.5)
	Married	129(82.7)	133(85.3)
	Widow	11(7.1)	1(0.6)
	Divorced/Separated	0	1(0.6)
Education (completed years of education)	Illiterate	2(1.3)	6(3.8)
	Primary (≤5)	14(9)	4(2.6)
	Secondary(≤8)	8(5.1)	5(3.2)
	High school (≤ 10)	21(13.5)	19(12.2)
	Higher secondary(≤ 12)	36(23.1)	49(31.4)
	Graduation (≤ 17)	51(32.7)	54(34.6)
	Post-graduation (>17)	24(15.4)	19(12.2)
Employment	Working	86(55.1)	68(43.6)
	Studying	7(4.5)	8(5.1)
	Retired	19(12.2)	2(1.3)
	Not working	44(28.2)	78(50)
Monthly per capita Income (INR/month)*	Lower class	2(1.3)	1(0.6)
	Lower middle class	12(7.7)	10(6.4)
	Middle class	11(7.1)	6(3.8)
	Upper middle class	131(84)	139(89.1)
Relationship of caregiver to patient	Husband	-	32(20.5)
	Wife	-	64(41)
	Son	-	17(10.9)
	Daughter	-	19(12.2)
	Mother	-	9(5.8)
	Daughter in law	-	5(3.2)
	Brother	-	3(1.9)
	Grand son	-	1(0.6)
	Sister in law	-	2(1.3)
	Son in law	-	2(1.3)
	Friend	-	2(1.3)

*Modified Prasad's classification of socioeconomic status for India³⁷

Table 2. Comparison of Prescription, nonprescription and complementary and alternative medicine (CAM) among patients (n=156)

Medications		n(%)
Prescription medication		
1. Number of medicines		
One		91 (58.3)
Two		44 (28.2)
Three		13 (8.3)
Four		4 (2.6)
Five		3 (1.9)
Six		1 (0.6)
2. Regular/As on need basis		
Regular intake		141 (90.3)
PRN (As on need)		15 (9.5)
Nonprescription medications		
Nil		
		139 (89.1)
Antacids		
		1 (0.6)
Analgesics		
		16 (10.1)
1. Number of medicines		
Nil		139(89.1)
One		14(9)
Two		3(1.9)
Regular/ As on need basis		
Nil		139 (89.1)
Regular		3 (1.9)
PRN (As on need)		14 (9)
CAM		
Nil		
		150 (96.2)
Vitamin supplements		
		1 (0.6)
Folate supplements		
		1 (0.6)
Antiulcer preparations		
		1 (0.6)
Calcium supplements		
		1 (0.6)
Iron supplements		
		2 (1.2)
Number of CAMs		
Nil		151 (96.8)
One		4(2.6)
Two		1(0.6)
Regular/ As on need basis		
Nil		151(96.8)
Regular		3(1.9)
PRN (As on need)		2(1.3)

CAM: complementary and alternative medicine;

groups was made by Mann-Whitney U test and the chi-square test wherever appropriate. The level of significance was set at $p < 0.05$.

RESULTS

Out of the 340 questionnaires collected from both the patients and their primary caregivers, 28 questionnaires were incomplete and were excluded from the study. A total of three hundred and twelve questionnaires complete in all aspects were included for the study. The demographic profile of patients and caregivers was given in Table 1. Among the 156 patients, 41.7% were between 36-50 years of age. Only 16.7% belong to the elderly age group. 25.6% were hypertensives, and 21.2% had diabetes. The mean duration of the disease condition was 5.42 years. 43.6% of the patients and 62.2% of the caregivers were female. 55.1% of the patients and 43.6% of caregivers were employed. The details of prescription, nonprescription, and CAM usage among patients are given in Table 2. The prescription medications include antihypertensives, oral hypoglycemic drugs, and others include proton pump inhibitors, antihistamines, calcium supplements, antithyroid drugs, analgesics, hypolipidemic, and

antiepileptics. The average number of medications and their duration of intake were found to be 2/person and 5.13 years, respectively. Only 2.5% were taking >5 medications. 58.3% were taking at least one regular prescription medication. 90.3% were taking the prescription on a regular basis, and nearly 9.5% were taking it on as on need basis.

There was a significant difference between the male and female in the median scores of the global factor (G2) among the patients. But there were no significant differences in the median scores of the four factors between the patients and primary caregivers. The response of the patients to the rPATD questionnaire was given in Figure 1. 51.3% of the patients were willing to stop one or more of their regular medicine(s) under the advice of the treating physician, but 62% were satisfied with their current medicine(s). 63% of the patients have good knowledge about their prescription medicines, and 53.8% would like to be involved in decision making. 44.9% of the participants felt that they spent a lot of money on their medicine(s) and taking a large number of medicines (44.2%). 30.8% felt that they were taking medicines that were no longer needed by them. Some (44.2%) liked their doctor to reduce the dose of their current medicine(s). 33.4% were reluctant to stop medicines that they had been taking for a long time. The response of the caregivers to the rPATD questionnaire was given in Figure 2. There was a moderate agreement between the various questions of different factors (Appropriateness factor, Burden factor, Concerns about stopping factor, Involvement factor) among the patients and caregivers by kappa statistics (p-value was highly significant for certain factors). Thus, there was a moderate degree of agreement between patients and their caregivers in the trial of medication cessation (Table 3).

DISCUSSION

Deprescribing is a process of thoughtful medication withdrawal that complements moderate prescribing and is aimed to stop unfair deviation of resources towards non-beneficial, if not a maleficent prescription.²² Hence, the involvement of health care professionals and consumers in the decision-making process in medication management is an ultimate necessity.²³ At the end of two months of the study period, it was found that more than 50% of people were willing to try medication cessation under their physician's recommendation. Though this percentage is much lower than the previous studies (67.7-92%), it is almost similar to the survey conducted in Nepal.^{2,17,20,24,25} Hence, in a developing country like India with a limited resource setting, this may be a conjectural willingness, and that the actual desire may be much higher than expected.²⁶ Interestingly, in a study conducted in Canada, though 86% of participants indicated a willingness to deprescribe, yet only 41% were successfully deprescribed. Hence, the success of the trial of medication cessation depends not only on assessing the readiness to deprescribe but also on the actual implementation of a successful deprescribing process.^{27,28} This process requires a lot of support from the caregivers of the patients and the health care providers. Thus, in our study the caregivers were also were willing to accept the trial of medication cessation for their care recipient's.

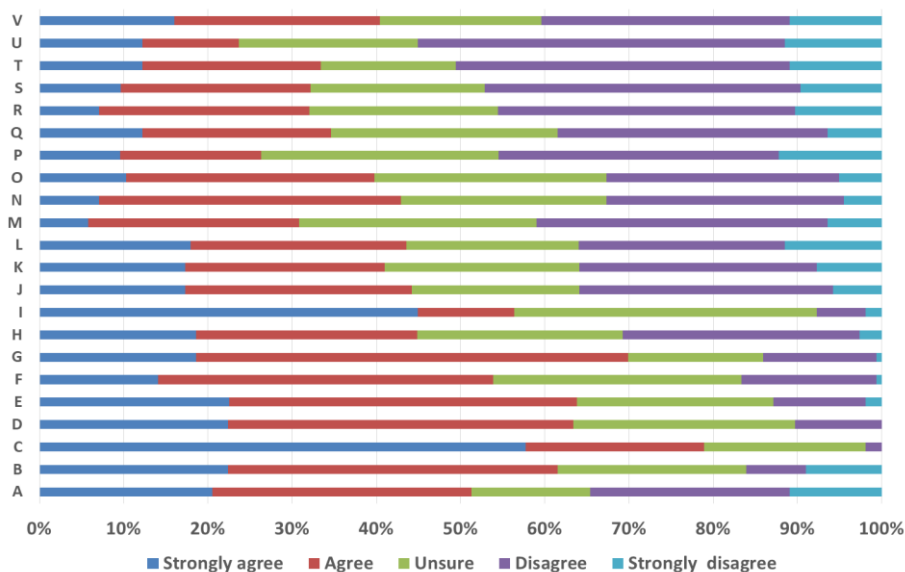


Figure 1. Patients' responses to Patient attitude towards deprescribing (PATD) questionnaire:

- A: If my doctor said it was possible I would be willing to stop one or more of my regular medicine(s)
- B: Overall, I am satisfied with my current medicine(s).
- C: I have a good understanding of the reasons I was prescribed each of my medicines
- D: I know exactly what medicine(s) I am currently taking and /or I have an up to date list of the medicine(s)
- E: I like to know as much as possible about my medicines
- F: I like to be involved in making decisions about my medicine(s) with my doctor
- G: I always ask my doctor, pharmacist or other health care professional if there is something I don't understand about my medicine(s)
- H: I spend a lot of money on my medicine(s)
- I: Taking my medicine(s) every day is very inconvenient
- J: I feel that I am taking a large number of medicines
- K: I feel that my medicine(s) are a burden to me
- L: Sometimes I think I take too many medicine(s)
- M: I feel that I may be taking one or more medicine(s) that I no longer need
- N: I would like to try stopping one of my medicines to see how I feel without it
- O: I would like my doctor to reduce the dose of one or more of my medicine(s)
- P: I believe one or more of my medicine(s) may not be working
- Q: I believe one or more of my medicine(s) may be currently giving me side effects
- R: I would be reluctant to stop a medicine that I had been taking for a long time
- S: If one of my medicines was stopped I would be worried about missing out on future benefits
- T: I get stressed whenever changes are made to my medicine(s)
- U: If my doctor recommended stopping a medicine I would feel that he /she was giving up on me
- V: I have had a bad experience when stopping a medicine in the past

Most of the studies on deprescribing were carried out on older people with chronic diseases like diabetes, hypertension, osteoarthritis, etc., implicating age, chronic nature of the disease etc. as a significant predictor for deprescribing.^{2,6,17,25,29} A study done in south India to assess the attitude of physicians towards deprescribing found that nearly 56.9% of the treating physicians wanted to carry out deprescribing not only in the elderly but for all age groups.⁹ Hence, in the present study, we included younger, middle-aged, and older adults (16.7%) and wanted to assess their willingness to deprescribing. The study done in Malaysia found that the participant's age and education level would influence the deprescribing behaviour.³⁰ But, we could not find any such association with the present study. Among our study population, nearly 25.6% were hypertensives, and 21.2% had diabetes. The average number of medications and their duration of intake were found to be 2/person and 5.13 years, respectively. Only 2.5% were taking >5 medications. 58.3% were taking at least one regular prescription medication. There was a moderate degree of agreement between patients and their

caregivers in the trial of medication cessation. Even though most of them were young and middle-aged participants who were less heavily medicated but still were willing for a trial of medication cessation because of the chronic nature of the disease and longer treatment duration, which shows similar results as shown in previous studies.^{25,31,32}

A study conducted by Reeve et al. in the elderly found that the participants took an average of ten different prescriptions and nonprescription (including complementary) on a regular and as-needed basis. Further, they found that more than 60% of their participants felt that they were taking a "large number" of medications, and 92% stated that they would be willing to stop one or more of their current medications if possible.¹⁷ But, in our present study, among the 156 patients, 90.3% were taking the prescription on a regular basis, and nearly 9.5% were taking it on a need basis. 62% were satisfied with their current medicine(s), and 51.3% of the patients were willing to stop one or more of their regular medicine(s) under the advice of treating physicians. 44.2% felt that they were taking a

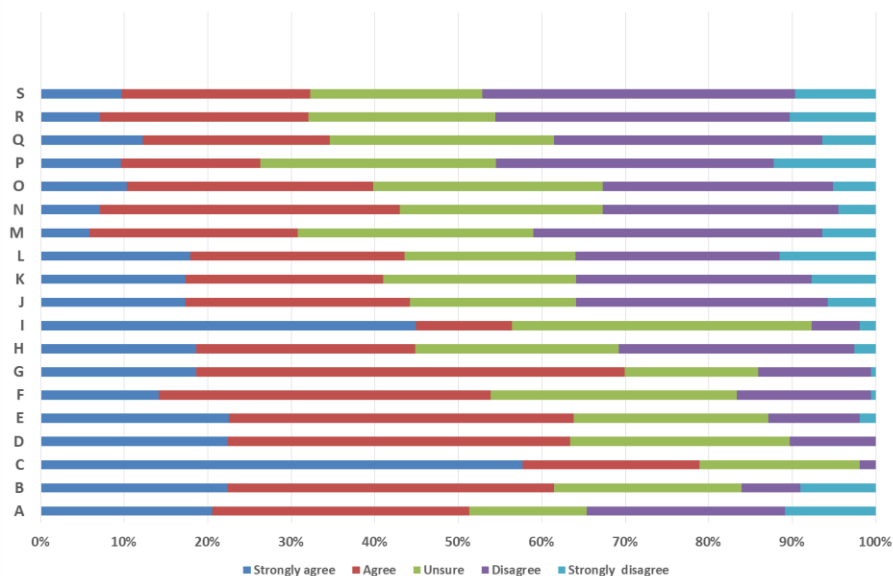


Figure 2. Caregivers' responses to Patient attitude towards deprescribing (PATD) questionnaire:

- A: If their doctor said it was possible I would be willing to stop one or more of my care recipient's medicine(s)
- B: Overall, I am satisfied with recipient's current medicine(s)
- C: I know exactly what medicine(s) the person that I care for is currently taking and /or I have an upto date list of their medicine(s)
- D: I like to know as much as possible about my medicine(s)
- E: I like to be involved in making decisions about recipient's medicine(s)
- F: I always ask my doctor, pharmacist or other health care professional if there is something I don't understand about my care recipient's medicine(s)
- G: My care recipient's medicine(s) are quite expensive
- H: I feel that the person I care for is taking a large number of medicines
- I: I feel that recipient's medicine(s) are a burden to them
- J: Sometimes I think that the person I care for take too many medicine(s)
- K: I feel that the person that I care for may be taking one or more medicine(s) that they no longer need
- L: I would like the doctor to try stopping my recipient's medicines to see how they feel without it.
- M: I would like my doctor to reduce the dose of one or more of my care recipient's medicine(s)
- N: I believe one or more of my care recipient's medicine(s) may not be working
- O: I believe one or more of my care recipient's medicine(s) may be currently giving them side effects
- P: I would be reluctant to stop one of my care recipient's a medicine that they had been taking for long time
- Q: I get stressed whenever changes are made to my recipient's medicine(s)
- R: I feel that if I agreed to stopping one of my care recipient's medicines
- S: The person that I care for has had a bad experience when stopping a medicine before when stopping a medicine in the past

large number of medicines. There was good agreement between the patients and their caregivers in the trial of medication cessation.²⁰ The difference may be because of the fact that the deprescribing behavior is not restricted to any single factor, always has a multifactorial association and should be decided on a case to case basis. The challenges for deprescribing can be classified into three factors: drug or treatment-related factors like withdrawal syndromes, rebound effects, pharmacokinetic/pharmacodynamic changes that alter the metabolism of drugs which were continued and recurrence of symptoms that were being treated with the ceased medication, etc. Treating physician-related factors like time limitations, professional hindrances and lack of deprescribing guidelines. Patient or family-related factors like socioeconomic and financial constraints, worries, and doubts on the physician treatment, and the factors may not be predictable.^{33,34} A study conducted on middle-aged women in the rural Appalachian United States found that ≥90% of participants were satisfied with their current medications. Yet, they would be willing to stop one or more prescribed medications.³⁵ Similarly, in the present study, we found a

significant difference between the male and female patients in relation to the overall satisfaction with their current medicine but willing to have the trial of medication cessation.

To combat polypharmacy, the concept of deprescribing has emerged and gained momentum in recent years. However, the process of deprescribing is not an easy task, and it has its limitations. We have done the study in a hospital setup focusing on chronic diseases and could not carry out the survey in community setup because of logistic feasibility. The association between the medication cost implication in therapeutic decision making was not explored in our study as our institution is a Government hospital where drugs are distributed free of cost. Thus, the results of this study may not be generalized to the entire population. Further, we have not involved the other stakeholders in assessing the deprescribing behavior like the physician, nurses, and pharmacists, who may provide valuable suggestions on identifying the potential enablers and barriers to pharmacolysis.³⁶ These may be considered as the major

Table 3. Agreement between the scores of factors/responses of the patients and the caregivers to the rPATD questionnaire

Factors	Patients (n=156)		Caregivers(n=156)		Weighted kappa (95%CI)	
	Median	IQR	Median	IQR		
Global	G1	4	2-4	3	2-4	0.5 (0.4-0.6)
	G2	4	3-4	4	3-4	0.5 (0.3-0.6)
Involvement	I1	5	3-4	-	-	-
	I2	4	3-4	4	3-4	0.2 (0.06-0.3)
	I3	4	3-4	4	3-4	0.2 (0.06-0.3)
	I4	4	3-4	4	3-4	0.3 (0.2-0.4)
	I5	4	3-4	4	3-4	0.2 (0.01-0.4)
Burden	B1	3	2-4	3	2-4	0.5 (0.4-0.6)
	B2	4	3-5	-	-	-
	B3	3	2-4	3	2-4	0.4 (0.3-0.5)
	B4	3	2-4	3	2-4	0.5 (0.4-0.6)
	B5	3	2-4	3	2-4	0.3 (0.2-0.5)
Appropriateness	A1	3	2-4	3	2-4	0.3 (0.2-0.4)
	A2	3	2-4	3	2-4	0.2 (0.1-0.3)
	A3	3	2-4	3	2-4	0.2 (0.1-0.3)
	A4	3	2-4	3	2-4	0.4 (0.3-0.5)
	A5	3	2-4	3	2-4	0.3 (0.2-0.4)
Concerns about stopping	C1	3	2-4	3	2-4	0.5 (0.4-0.6)
	C2	3	2-4	-	-	-
	C3	2	2-4	3	2-4	0.4 (0.3-0.5)
	C4	2	2-3	2	2-4	0.4 (0.3-0.6)
	C5	3	2-4	3	2-4	0.5 (0.4-0.6)

IQR: Interquartile range. 95%CI: 95% confidence interval.
 For all weighted kappa value, P value was found to be <0.001 and considered statistically significant. Kappa coefficient of 1 indicates perfect agreement and 0 indicates agreement occurred by chance. A Cohen's kappa coefficient of below 0.20 is regarded as poor, 0.20–0.40 as fair, 0.41–0.60 as moderate, 0.61–0.80 as good and 0.80 as very good.

limitations of the study, and further research and follow-up studies are required in deprescribing.

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CONCLUSIONS

Interestingly, at the end of two months of the study period, it was found that more than 50% of people and their caregivers were willing to try medication cessation under their physician's recommendation. There was moderate agreement between the patients and their caregivers in the trial of medication cessation. Thus, the results obtained from this study may help us to implement steps to reduce polypharmacy and sets a way towards improving rationalized prescribing practices in institutional setup. Further, deprescribing behavior is not restricted to any single factor, always has a multifactorial association, and should be decided on a case-to-case basis. Hence, further research is required to extend the utility of deprescribing in acute and chronic clinical care settings with adequate follow-up to identify the potential harms, benefits, and impact on economic outcomes.

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CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest to disclose.

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