

BMJ Open Older patients' perception of deprescribing in resource-limited settings: a cross-sectional study in an Ethiopia university hospital

Henok Getachew Tegegn,¹ Yonas Getaye Tefera,¹ Daniel Asfaw Erku,¹ Kaleab Taye Haile,² Tamrat Befekadu Abebe,^{1,3} Fasil Chekol,¹ Yonas Azanaw,¹ Asnakew Achaw Ayele¹

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¹Department of Clinical Pharmacy, University of Gondar, Gondar, Ethiopia

²Department of Pharmaceutics and Social Pharmacy, University of Gondar, Gondar, Ethiopia

³Department of Learning, Informatics, Management and Ethics (LIME), Karolinska Institute, Solna, Sweden

Correspondence to
Henok Getachew Tegegn;
heniget@gmail.com

ABSTRACT

Objective To assess older patients' attitude towards deprescribing of inappropriate medications.

Design This was an institutional-based, quantitative, cross-sectional survey.

Setting Outpatient clinics of the University of Gondar Referral and Teaching Hospital in Ethiopia.

Participants Patients aged 65 or older with at least one medication were enrolled in the study from 1 March to 30 June 2017. Excluded patients were those who had severe physical or psychological problems and who refused to participate.

Main outcome measures Older patients' attitude towards deprescribing was measured using a validated instrument, 'the revised Patients' Attitudes towards Deprescribing' (rPATD) tool for older patients. Data were collected on sociodemographic characteristics and clinical data such as comorbidity and polypharmacy, and the main outcome was older patients' willingness to deprescribe inappropriate medications.

Results Of the 351 eligible participants, 316 patients completed the survey. Of the 316 patients, 54.7% were men and were taking a median of 3 (IQR: 2–4) medications daily. Overall, most of the participants (92.1%; 95% CI 89% to 95%) were satisfied with the medications they were taking; however, still a significant number of participants (81.6%; 95% CI 77% to 86%) were willing to stop one or more of their medications if possible and agreed by their doctors. This willingness was correlated with seven items of the rPATD, including a strong correlation with the overall satisfaction of patients with the medications taken.

Conclusion Many older patients have shown their willingness to reduce one or more of their medications if their doctors said it was possible. Healthcare providers should be proactive in discussing and evaluating potentially inappropriate medications for better clinical decision making.

INTRODUCTION

Polypharmacy, often defined as the practice of prescribing five or more medications to the same person, has been linked with pervasive adverse drug events (ADEs)

Strengths and limitations of this study

- Older patients' attitude towards deprescribing and their willingness to stop medications were assessed for the first time in a resource-limited setting.
- This study used a validated multidimensional questionnaire in a relatively large number of patients.
- The validated tool, revised Patients' Attitudes towards Deprescribing, however, has not been tested in a culturally diverse setting such as Ethiopia.
- Owing to the interviewer-based questionnaire structured for quantitative research, the study does not permit indepth investigation of patients' attitude.
- Caregivers of older patients have not been included in the current study as they may affect the preference and willingness to stop medications.

and ultimately leads to increased morbidity, mortality and healthcare costs.^{1–3} Polypharmacy-related ADEs are very common and estimated to occur in 25% of ambulatory care patients.³ Deprescribing, one of the approaches to prevent polypharmacy-related ADEs, is defined as the 'the process of withdrawal of inappropriate medication, supervised by a health care professional with the goal of managing polypharmacy and improving outcomes'.⁴ Given the holistic and patient-centred nature of deprescribing, it has a number of benefits to the patient. A recent systematic review conducted by Page *et al*⁵ reported that individualised deprescribing interventions to reduce inappropriate polypharmacy may improve mortality.⁵ Deprescribing also has potential additional benefits to the patient, such as increasing the patient's engagement in medication therapy management and improving adherence possibly through reducing polypharmacy.⁶

The impact of deprescribing is conceivably beneficial to older patients living in

resource-limited countries such as Ethiopia, where the incidence of chronic non-communicable diseases and multimorbidity is mounting in an alarming rate.⁷ The burden of chronic diseases alongside Ethiopian patients' out-of-pocket expenses and affordability for drug purchases particularly from private drug retail outlets is challenging for most patients.⁸

While concepts such as adherence and medication reconciliation have received considerable attention, and covered by a wide range of literatures worldwide, little attention has been given to the concept of deprescribing and reduction of inappropriate polypharmacy.⁹ Despite the prescribers' positive attitude on deprescribing,¹⁰ many factors including clinical uncertainty and shared responsibility with other healthcare providers severely impede clinicians' ability to proactively discontinue medications.¹¹ Moreover, patients' perspectives on deprescribing and their communication with clinicians are equally important in an evidence-based medication discontinuation process. Several studies conducted in developed countries regarding older peoples' attitudes towards deprescribing reported a higher rate of willingness to discontinue their medications.^{12–16} However, no previous study has explored the attitudes of Ethiopian older patients regarding their medications and deprescribing. It is also uncertain how patients would respond to a suggestion from a clinician to intentionally discontinue a medication. Taking the global evidence into consideration and due to the lack of data in Ethiopia, we sought to identify Ethiopian older patients' willingness to have their medications deprescribed.

METHODS

Study design and setting

An institutional-based, quantitative, cross-sectional survey was conducted from 1 March to 30 June 2017 at the University of Gondar Referral and Teaching Hospital (UoGRTH) in Ethiopia. The hospital is located in the town of Gondar, north-west Ethiopia, 738 km away from Addis Ababa, and it is the only referral and teaching centre in the area where majority of patients with chronic diseases including hypertension, diabetes mellitus (DM), cancer and asthma are referred.

Participants

All older patients (≥ 65 years) who had been taking at least one medication regardless of their diagnosis and who visited the outpatient clinic of the UoGRTH for follow-up as well as medication refill were included. Patients who had severe physical or psychological problems and those who refused to participate were excluded from the survey. Of 351 eligible participants obtained during the study period, 316 older adult patients completed the survey data.

Main outcome measures

Older patients' attitude towards deprescribing was measured using a validated tool, the revised Patients'

Attitudes towards Deprescribing (rPATD) for older patients. Predictive variables were sociodemographic and clinical data such as comorbidity and polypharmacy. The main outcome of interest was older patients' willingness to deprescribe their medications.

Survey instrument

We used the rPATD questionnaire,¹⁷ which is a validated multidimensional questionnaire that measures patients' attitudes, knowledge and experiences related to medication discontinuation. The original 5-point Likert scale in the rPATD questionnaire was changed to a 4-point Likert scale (strongly agree, agree, disagree and strongly disagree) in the current study as it may allow the participants to be more discriminating and to avoid misinterpretation of midpoints. The rPATD questionnaire has four major factors, namely burden factor (five items), appropriateness factor (five items), concerns about stopping factor (five items) and involvement factor (five items), and additional two global questions are also considered. The previously validated tool—Belief in Medicine use Questionnaire-Overuse¹⁸—was used for comparison and validation of the rPATD questionnaire. The questionnaire, first prepared in English, was translated into Amharic language and back to English so as to ensure that the translated version gave the proper meaning. It was further pretested on 25 elderly patients, who were not included in the final analysis, and slight modifications were instituted before the commencement of the final survey. Polypharmacy was defined as the use of ≥ 5 regular medications.

Data were collected by three of the principal investigators through interviewer-administered questionnaire. Due to the low literacy level of the participants in our study setting, we were forced to interview most of the patients rather than self-administration to clarify the questions. The investigators were properly trained on the instrument and on the ways of approaching the patients and securing their permission for interview prior to the data collection process. This training was conducted in the actual place of study setting to see if the investigators could manage data collection efficiently with adequate background knowledge about the study, working independently and good communication skills.

Patient and public involvement statement

Research questions have been identified during medication review and provision of counselling to older patients so as to get older patients involved in decision-making process. Moreover, the local advocacy group, the so-called Young Professionals Chronic Disease Network (YP-CDN) Ethiopia chapter, has worked with older patients living with chronic diseases and has identified their priorities for advocacy, and were used as an input for this research project.

Patients were involved in the design of this study by identifying the research question and identifying the need for

preliminary study. However, they were not involved in the recruitment and conduct of the study.

The study results will be disseminated both to the study participants and to the wider public using easy and accessible formats with understandable language during healthcare provisions and health education programmes. The authors will communicate the findings through national and international conferences. The findings will also be posted on international advocacy websites such as the YP-CDN website.

Statistical analysis

All statistical analyses were done using Statistical Package for Social Sciences (SPSS) V.21.0 software for Windows.¹⁹ Data were summarised as frequencies and percentages. Data were screened for normality using both the Shapiro-Wilk and Kolmogorov-Smirnov tests. Respondents were stratified by polypharmacy status to examine patients' attitude towards deprescribing.

Correlation analysis using Spearman's r was used to assess the associations between all rPATD items and three individual questions: patients' perception of side effects from their medications, patients' willingness to discontinue their medications if the doctor said it was possible and overall satisfaction of patients with the medications taken. Binary logistic regression was performed after dichotomising the two item questions (willingness to deprescribe one or more of their regular medications if the doctor said it was possible and overall satisfaction with their prescribed medications)

by grouping the four Likert responses to 'strongly agree and agree' versus 'strongly disagree and disagree', as shown in the online supplementary table.

Ethical consideration

Written informed consent from the respondents was obtained before conducting this study. The information obtained from the participants was kept confidential.

RESULTS

A total of 351 patients were approached, 316 of whom completed the questionnaire (response rate, 90%). The median age of the participants was 70 years (IQR: 67–75). The median number of their daily medications was 3 (IQR: 2–4). From the total number of participants, 62 (19.7%) were on polypharmacy. The most common reasons for hospital visits both in the polypharmacy and non-polypharmacy groups were hypertension and DM. Details of the sociodemographic characteristics of the study participants are tabulated in [table 1](#).

As reported in [table 2](#), a total of 316 participants responded to 22 rPATD questions. In the burden factor domain, a total of 214 older patients (67.7%; 95% CI 63% to 73%) thought that they spent a lot of money on their medications, yet there is a considerable percentage of participants (61.5%) who did not feel their medications were a burden to them. The appropriateness factor domain showed that close to 90% of the participants

Table 1 Sociodemographic and clinical characteristics of study participants (n=316)

Variable	Participants, n (%)	Polypharmacy, n (%)	
		Yes (n=62)	No (n=254)
Gender			
Male	173 (54.7)	35 (56.45)	138 (54.55)
Female	143 (45.3)	27 (43.55)	116 (45.45)
Age, median (IQR)	70 (67–75)	70 (67–73)	70 (67–75)
Educational status			
Unable to read and to write	202 (64)	37 (59.68)	165 (65.2)
Primary school	62 (19.6)	13 (20.97)	49 (19.37)
Secondary school	32 (10.1)	5 (8.06)	26 (10.28)
Higher education	20 (6.3)	7 (11.29)	13 (5.14)
Reason of hospital visit (n=315)			
Hypertension	128 (40.5)	20 (32.3)	108 (42.5)
Heart failure	23 (7.3)	8 (1.3)	15 (5.9)
Diabetes mellitus	105 (33.2)	22 (35.5)	83 (32.7)
Chronic kidney disease	14 (4.4)	1 (1.6)	13 (5.1)
Asthma	8 (2.5)	2 (3.2)	6 (2.4)
Rheumatoid heart disease	10 (3.2)	4 (6.5)	6 (2.4)
Others	27 (8.6)*	5 (8.1)	22 (9.1) [†]
Charlson Comorbidity Index,* median (IQR) (n=315)	2 (1–2)	2 (2–3)	2 (1–2)
Number of medications, median (IQR)	3 (2–4)	5 (5–6)	3 (2–3)

*Data were missing for one participant.

Table 2 Patients' attitudes towards deprescribing based on the rPATD questionnaire (n=316)

Survey questions		Strongly disagree	Disagree	Agree	Strongly agree	Strongly agree/ Agree, % (95% CI)
Burden factor						
B1	I spent a lot of money on my medicines.	87 (27)	15 (4.7)	84 (26.6)	130 (41.1)	67.7 (63 to 73)
B2	Taking my medicines every day is very inconvenient.	104 (32.9)	92 (29.1)	107 (33.9)	13 (4.1)	38 (32.6 to 43.4)
B3	I feel that I am taking a large number of medicine.	88 (27.8)	68 (21.5)	135 (42.7)	25 (7.9)	50.6 (45 to 56)
B4	I feel that my medicines are a burden to me.	114 (36.1)	80 (25.4)	110 (34.8)	12 (3.8)	38.6 (33 to 44)
B5	Sometimes I think I take too many medicines.	134 (42.4)	69 (21.8)	105 (33.2)	8 (2.5)	35.7 (30 to 41)
Appropriateness factor						
A1	I feel that I may be taking one or medicines that I no longer need.	144 (45.6)	65 (20.6)	95 (30.1)	12 (3.8)	33.9 (29 to 39)
A2	I would like to try stopping one of my medicines to see how I feel without it.	257 (81.3)	29 (9.2)	21 (6.6)	9 (2.8)	9.4 (6 to 13)
A3	I would like my doctor to reduce the dose of one or more of my medicines.	133 (42.1)	49 (15.5)	104 (32.9)	30 (9.5)	42.4 (37 to 48)
A4	I think one or more of my medicines may not be working.	7 (2.2)	24 (7.6)	281 (88.9)	4 (1.3)	90.2 (87 to 93)
A5	I believe one or more of my medicines may be currently giving me side effects.	114 (36.1)	70 (22.2)	121 (38.3)	11 (3.5)	41.8 (36 to 47)
Concerns about stopping factor						
C1	I would be reluctant to stop a medicine that I had been taking for a long time.	109 (34.5)	119 (37.7)	65 (20.6)	23 (7.3)	27.9 (23 to 33)
C2	If one of my medicines was stopped I would be worried about missing out on future benefits.	9 (2.8)	25 (7.9)	122 (38.6)	160 (50.6)	89.2 (86 to 93)
C3	I get stressed whenever changes are made to my medicines.	87 (27.5)	81 (25.6)	132 (41.8)	16 (5.1)	46.9 (41 to 52)
C4	If my doctor recommended stopping a medicine I would feel that he/she was giving up on me.	146 (46.2)	82 (25.9)	63 (19.9)	25 (7.9)	27.8 (23 to 33)
C5	I have a bad experience when stopping a medicine before.	186 (58.9)	47 (14.9)	45 (14.2)	38 (12.0)	26.5 (21 to 31)
Involvement factor						
I1	I have a good understanding of the reasons I was prescribed each of my medicines.	59 (18.7)	44 (13.9)	168 (53.2)	45 (14.2)	67.4 (62 to 73)
I2	I know exactly what medicines I am currently taking, and/or I keep an up to date list of my medicines.	114 (36.1)	126 (39.9)	65 (20.6)	11 (3.5)	24.1 (19 to 29)
I3	I like to know as much as possible about my medicines.	71 (22.5)	54 (17.1)	162 (51.3)	29 (9.2)	60.5 (55 to 66)

Continued

Table 2 Continued

Survey questions		Strongly disagree	Disagree	Agree	Strongly agree	Strongly agree/ Agree, % (95% CI)
14	I like to be involved in making decisions about my medicines with my doctors.	32 (10.1)	93 (29.4)	165 (52.2)	26 (8.2)	60.4 (55 to 66)
15	I always ask my doctor, pharmacist or other healthcare professional if there is something I don't understand about my medicines.	19 (6.0)	40 (12.7)	161 (50.9)	96 (30.4)	81.3 (77 to 86)
General questions						
G1	If my doctor said it was possible I would be willing to stop one or more of my regular medicines.	22 (7.0)	36 (11.4)	74 (23.4)	184 (58.2)	81.6 (77 to 86)
G2	Overall, I am satisfied with my current medicines.	9 (2.8)	16 (5.1)	120 (38.0)	171 (54.1)	92.1 (89 to 95)

Adopted from the revised Patients' Attitudes towards Deprescribing (rPATD) questionnaire.¹⁷

thought that one or more of their medications may not be working if they stopped taking, and this was further confirmed by their intention to stop their medications; only 9.4% had tried to stop medications in order to see how they felt without taking medications. With regard to concerns about stopping factor, most of the respondents (89.2%; 95% CI 86% to 93%) were worried about missing out on the future benefits if one of their medications had been stopped. In the involvement factor, majority of the respondents (257 participants; 81.3%; 95% CI 77% to 86%) asked their doctors, pharmacists or other healthcare professionals if there was any misunderstanding about their medications. If the doctor said it was possible, about 258 individuals (81.6%; 95% CI 77% to 86%) were willing to stop one or more of their regular medications, although a significant number of participants were satisfied overall with the medications they were taking (92.1%; 95% CI 89% to 95%) (table 2).

Patients' perception of side effects from their medications was positively associated with 13 items but negatively with 3 items. Those patients who thought their medications are a burden to them more likely perceived side effects from one or more medications. There had been a lack of an overall satisfaction with the medications patients were taking if they perceived side effects from one or more of their medications (table 3).

Patients' willingness to discontinue their medications if their doctor said it was possible was correlated with seven items of the rPATD. Of the three items positively associated with this question, patients are willing to stop one or more of their medications if they were told to do so by their doctors even though they may be worried about missing out on the future benefits if they stopped one of their medications. On the contrary, four of the items were negatively correlated with patients' willingness to discontinue their medications if the doctor said it was possible, such as belief that participants were taking

too many medications, were perceiving side effects from one or more of their medications, were reluctant to stop a medication they have been taking for a long time and perceived their doctors are giving up on them if they recommended stopping a medicine. The overall satisfaction of patients with the medications taken was correlated with many items of the rPATD questionnaire, as described in detail in table 3.

DISCUSSION

Older adult patients are prone to multimorbidity with high medication regimen complexity, needing to stop medications, a growing concept that is called deprescribing.¹³ Elderly patients receiving many medications with their underlined medical illness are vulnerable to rehospitalisation, drug-induced complications and morbidity. Moreover, polypharmacy compromises patient adherence and incurs additional costs in managing unnecessary adverse outcomes.^{20–25} Hence, mutual agreement between patients and clinical practitioners should be sought to optimise elderly patients' medication regimen, keeping only few medications.²⁶ To our knowledge, this is the first study to have been conducted on this area in a resource-limited setting such as Ethiopia.

In the current study, the median number of patients' daily medications (3) was very low as compared with other studies, such as Kalogianis *et al's* study¹² with a mean of 14.6, while the median was 6 and 11 in Sirois *et al*¹⁶ and Reeve *et al*¹³ studies, respectively. In spite of the low median number of medications in the current study, majority (81.6%) of the patients agreed to stop one of the medicines if their doctors said it was possible. This is also consistent with the previous studies conducted by Kalogianis *et al*,¹² Galazzi A *et al*²⁷ and Reeve *et al*,¹³ showing rates of 80%, 89% and 92%, respectively, in patients' willingness to stop their medicines if informed to do so by

Table 3 Spearman's correlation of responses within the revised Patients' Attitudes towards Deprescribing (rPATD) questionnaire

rPATD questions Spearman's correlation (P values)	10. I believe one or more of my medicines may be currently giving me side effects.	21. If my doctor said it was possible I would be willing to stop one or more of my regular medicines.	22. Overall, I am satisfied with my current medicines.
Burden factor			
1. I spend a lot of money on my medicines.	0.03, 0.063	0.14, 0.06	0.16, 0.00
2. Taking my medicines every day is very inconvenient.	0.24, 0.00	-0.07, 0.19	-0.28, 0.00
3. I feel that I am taking a large number of medicine.	0.15, 0.01	-0.096, 0.09	-0.35, 0.00
4. I feel that my medicines are a burden to me.	0.31, 0.00	-0.08, 0.17	-0.35, 0.00
5. Sometimes I think I take too many medicines.	0.25, 0.00	-0.22, 0.00	-0.53, 0.00
Appropriateness factor			
6. I feel that I may be taking one or medicines that I no longer need.	0.25, 0.00	-0.09, 0.13	-0.38, 0.00
7. I would like to try stopping one of my medicines to see how I feel without it.	0.06, 0.32	-0.04, 0.48	-0.1, 0.42
8. I would like my doctor to reduce the dose of one or more my medicines.	0.14, 0.02	0.04, 0.4	-0.25, 0.001
9. I think one or more of my medicines may not be working.	-0.11, 0.04	0.01, 0.8	0.14, 0.009
10. I believe one or more of my medicines may be currently giving me side effects.	1	-0.14, 0.08	-0.31, 0.00
Concerns about stopping factor			
11. I would be reluctant to stop a medicine that I had been taking for a long time.	0.19, 0.001	-0.3, 0.00	-0.26, 0.001
12. If one of my medicines was stopped I would be worried about missing out on future benefits.	-0.20, 0.00	0.26, 0.00	0.55, 0.00
13. I get stressed whenever changes are made to my medicines.	0.27, 0.00	-0.07, 0.19	-0.17, 0.002
14. If my doctor recommended stopping a medicine I would feel that he/she was giving up on me.	0.12, 0.03	-0.37, 0.00	-0.34, 0.00
15. I have a bad experience when stopping a medicine before.	0.19, 0.001	-0.07, 0.22	-0.18, 0.027
Involvement factor			
16. I have a good understanding of the reasons I was prescribed each of my medicines.	0.14, 0.01	0.04, 0.53	0.02, 0.74
17. I know exactly what medicines I am currently taking, and/or I keep an up to date list of my medicines.	0.12, 0.03	-0.02, 0.71	-0.001, 0.98
18. I like to know as much as possible about my medicines.	0.18, 0.001	-0.08, 0.14	-0.11, 0.175
19. I like to be involved in making decisions about my medicines with my doctors.	-0.01, 0.79	-0.01, 0.81	0.065, 0.45
20. I always ask my doctor, pharmacist or other healthcare professional if there is something I don't understand about my medicines.	0.05, 0.36	0.13, 0.02	0.18, 0.032

Continued

Table 3 Continued

rPATD questions Spearman's correlation (P values)	10. I believe one or more of my medicines may be currently giving me side effects.	21. If my doctor said it was possible I would be willing to stop one or more of my regular medicines.	22. Overall, I am satisfied with my current medicines.
General questions			
21. If my doctor said it was possible I would be willing to stop one or more of my regular medicines.	-0.14, 0.08	1	0.34, 0.00
22. Overall, I am satisfied with my current medicines.	-0.31, 0.00	0.34, 0.00	1

their doctors. This previews the importance of proactive engagement of healthcare professionals in the deprescribing process for older adult patients and that they should discuss with their patients how to optimise and simplify the dosage regimens. A small percentage (9.4%) of older patients would like to try to stop one of their medications to see how they feel without it, and most of the respondents (89.2%) would be worried about missing out on future benefits if one of their medications was stopped. In this regard, older patients' hesitation to stop one of their medications might be reasonable, but it might also be a potential barrier to discontinuation of inappropriate medication. The suitability of the deprescribing process of a particular medicine in a variety of populations should be decided by an integrated approach from patients, caregivers and other healthcare providers based on the benefits and potential harms.^{28 29}

Two-thirds of the patients believe that they spent a lot of money on medicines. Even though in the current study this variable was not correlated with patients' willingness to stop one or more of the medicines if the doctor said it was possible, medication costs might contribute to patients' positive attitude to deprescribing in a resource-limited setting. Another study has reported that having to pay less for medications influences patients' willingness to have their medications deprescribed and that paying more encourages deprescribing.¹² It is always important to consider cost implications in the therapeutic decision making and drug selection in elderly patients, as these patients are prone to prolonged care, polypharmacy and less productivity to handle their therapeutic expenses.³⁰

This study has shown the association between each item and the selected three questions of the survey items, such as perceiving side effects from one or more of medicines taken, willingness to stop one or more of medicines if the doctor said it was possible, and overall satisfaction with their current medications. Patients did not have overall satisfaction with their medications if they perceive side effects from one or more of the medications. In the current study, 'Patients' willingness to stop one or more of medications if advised by doctor' was negatively correlated with other item questions, such as 'Sometimes I think I take too many medicines', 'perceiving of

side effects from one or more of their medications' and 'being reluctant to stop a medicine taken for a long time'. However, it was positively associated with 'overall satisfaction with their medications', which in other words means that patients were willing to stop one or more of medications if the doctor said it was possible, even if they had overall satisfaction with their medications. Other studies also reported that patients' willingness to stop medication was correlated with a desire to take few medicines and the feeling of taking a large number of medications and being less comfortable with current medications.^{13 15 16}

Majority of the respondents ask their doctors, pharmacists or other healthcare professionals if there is any misunderstanding about their medications. This implies older adults' curiosity to know about their medicines, ask their healthcare provider and involve in the clinical decision-making process. This is very important to patient-provider relationships, encircling on the subthemes of trust, relying on expertise and shared decision making, which are imperative to better patient outcomes. In spite of these, majority of older adult participants do not have good knowledge of their medicines and are merely dependent on the healthcare providers to initiate decisions about their medications. Moreover, many patients who have a preference to take fewer medicines do not share their beliefs with providers and wait for provider-initiated medication discontinuation.³¹ Thus health professionals should use a patient-centred approach to outweigh the risks and benefits of every medicine against the particular goals of the elderly patient, with the aim of minimising the total number of prescribed medicines.³²⁻³⁴

Strengths and limitations

This is the first study in Ethiopia to assess older adults' perception towards deprescribing and their willingness to stop medicines by using a validated multidimensional questionnaire in a relatively large number of patients. Yet the results of the current study should be interpreted with caution due to some limitations. It is an interviewer-based questionnaire structured for quantitative research, which does not permit indepth investigation of patients' attitude. The rPATD questionnaire has not yet been validated in culturally different settings such as Ethiopia. This study

may suffer from generalisability as the study was done in a single-centre university hospital.

CONCLUSION

Most of the older patients (92.1%) were satisfied overall with medications they were taking. However, majority of the participants (81.6%) were willing to reduce one or more of their medications if their doctors said it was possible. Therefore, healthcare providers should be proactive in discussing, evaluating and in the decision making of potentially inappropriate medications. Further study with potentially large number of study participants and a qualitative study are warranted to fully evaluate the deprescribing attitude in different disease categories and prospective significance to Ethiopian older adults' health.

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