Original Article

Internal Dynamics of Self –Medication (SM)

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ABSTRACT

Recently, especially during Covid-19, there has been an increasing trend of Self-Medication (SM) in rural and semi urban areas of India. There are various contributing factors for these practices. It is defined as the use of medicine by patients on his own initiative or on the advice of pharmacists, previous prescription, and suggestion of family members of friends instead of consulting qualified doctors. The medicines which are available with pharmacists without prescription or over the counter (OTC) are known to be part of self-medication. A medicine that requires doctors' recommendation is known as prescribed product (Rx products).The present work discusses the positive sides at individual level and community level and at the same time possible risks involved at community level and individual level. It was found that even though there were various risks involved due to self-medication, people in rural and semi-urban areas also find some positive side of the same. Most importantly they believe that it reduces the cost of travelling, and cost of consultation with doctor. Sometimes due to past experience of the same sort of diseases or symptoms, people opt for self-medication practices. The study concludes that Potential benefits at individual levels were self – reliance for preventing minor disease and saving of time & energy. Similarly the same for the community level were extending the health care services to the needy people in rural and remote areas and saving scare medical resources for minor treatments /diseases. Potential risk at individual levels Failure to report or recognize the adverse drug reactions. Failure to seek appropriate medical assistance immediately and from the community point of view wasteful public expenditure and will lead to family disturbance due to death of member of family.

GRAPHICAL ABSTRACT
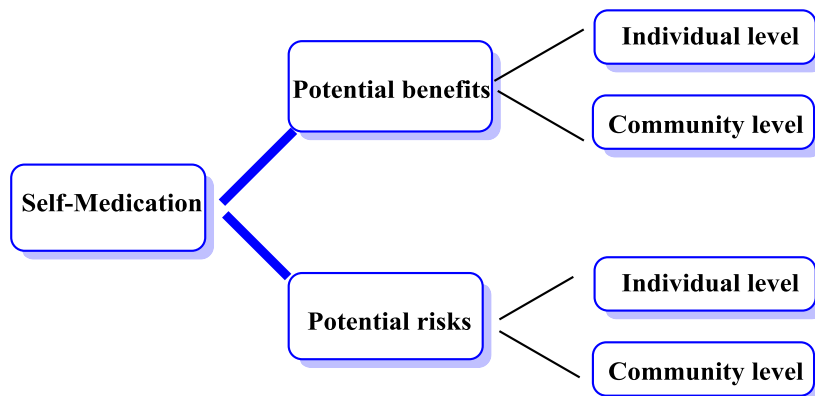
Introduction

Self-medication is a part and parcel of our self-care system for our health [1]. It is taking in drugs and herbs and home remedies with one's self initiative or with the suggestion of another person without consulting qualified medical practitioner [2]. Newspaper advertisement, TV advertisement, popular magazines, friends, family members, neighbors, past prescriptions, pharmacists, and friends are the important influencers for self-medication [3]. It is also found that most of the times government directly or indirectly influences the self-care of minor health issues including self-medication. Sometimes people are encouraged towards this because it helps to reduce the cost of treatment, travelling time or treatment time [4]. The various impacts of self-medication include wastage of resources, serious health hazards such as prolonged suffering and adverse health issues [5]. Government should take regulatory measures for self-medication. This can be done by making the availability of drugs in markets with proper instructions of consumption and where ever needed to consult physicians [6]. In India it is very much a challenge to healthcare providers due to this self-medication. These days health care services are a costly affair and also inadequacy of these facilities in the developing countries leads to self-medication most of the times [7]. It is also observed that some of the drugs that need prescription in the developed countries are available in OTC form in the developing and underdeveloped countries. In addition to that, relaxation of distribution of these drugs leads to proliferation of counter free drugs that are in high demand for the treatment of highly prevalent diseases [8]. Self-medication is very common nowadays and it is used worldwide [9]. Self-medication is very common in India, among both literate and illiterate masses [10].

The patient psyche has changed to a great extent. They are sometime competent enough to take care of minor diseases with proper medical diagnosis and occasional professional opinion from doctors. They prefer to avoid visiting doctors as they feel that they can manage themselves with adequate information [11]. Urge of self-care, feeling of sympathy towards family members during sickness, lack of time, lack of health services, financial constraint, ignorance, misbelieves, extensive advertisement, availability of drugs, and illiteracy are accountable for growing trend of self-medication [12]. Improper self-medication could result in increase in drug induced diseases and wasteful public expenditure (Table 1) [13].

Table 1: List of drugs used for self-medication

Category	Drugs
Coughandcold	D-coldtotal, corex, benadryl, glycodin, Analgesics Sadiron, disprin, diclofenac, nimesulide paracetamol, ibuprofen
Antipyretics	Calpol,crocin
Antiseptic	Ciprofloxacin, norfloxacin, amoxicillin, cefadroxil
Antibiotics	Ciprofloxacin, norfloxacin, amoxicillin, cefadroxil
Others	Daburchyawanprash

Classification According to Size

Depth of burn injury divides into superficial (first degree), superficial partial thickness (second A degree), deep partial thickness (second B degree), full thickness (third degree) and fourth degree. Size of burn injury classified into minor and major. Superficial burn injury affects the upper area of the epidermis layer, which its consequences are pain and erythema. Superficial partial thickness is deeper than first degree. Blister, pain and scar inducing are prominent symptoms of superficial partial thickness so it needs dressing but doesn't need surgery (Figure 2). Deep partial thickness due to destruction of pain receptors is less painful, dry and susceptible to scarring so it needs surgery. Full-thickness burns involve epidermis and dermis (all layers of skin) so it's not painful, susceptible to infection so more attention and surgery are needed. In the fourth degree burn injury deeper tissues are destructed so lead to tissue loss or amputation (Table 2).

Table 2: Review of literature

Number	Year	Authors	Findings/ observations
1	2008	Zafar S.N., *et.al*. [14]	Self-medication is common and positive.
2	2013	Pandy R.N., *et. al* [15]	Self-medication was mostly found in young generation.
3	2010	Abay [16]	Non seriousness towards illness and prior experience were the important factors for self-medication.
4	2012	Silva M.G., *et.al*. [17]	Knowledge about medicines leads to self-medication.
5	2013	Kumar *et. al* [18]	Stringent policy measures need to be implemented for controlling the supply of medicine without prescription.
6	2014	Shaghaghi A., *et. al* [19]	The reason(s) for engaging in self-medication practice in developing countries have been reported to include lack of medical insurance, expensive hospitals visits/consultation fees, easy public access to the prescribed medications
7	2014	Rout *et. al*. [20]	The most common indication for self-medication was for immediate relief for symptom of trivial ailments.
8	2014	Salami *et. al* [21]	Use of previously prescribed drugs when similar symptoms reappear and to use old prescriptions for new drugs.
9	2014	Belkina.T., [22]	Availability of non-prescribed drugs leads to more and more self-medication.
10	2010	Nalini G.K., [23]	Self-medication is high among old age people.
11	2018	Kassie A.D., *et. al*[24]	Earlier studies concluded that around 32.5-81.5 of world population practice self-medication.
12	2018	Noon J., *et. al* [25]	Self-medication helps cost of medical treatment, reduces burden on government, health care system and at the same time reduces the burden on insurance companies for claim settlement.
13	2020	Yang Y., [26]	SM mainly created by media because confusion created by them people diverted towards self-medication.
14	2020	Onchonga D., [27]	Due to Covid-19 the people used to search medicines in Google and become more habituated towards Self medication
15	2020	Johnson R.M., *et.al*. [28]	SM should be used for minor diseases not for the mild and moderate ones.
16	2020	Atif M., *et. al* [29]	A holistic approach needed in the form of education and regulatory issues for controlling the Self mediation.
17	2020	Mallhi T.H., *et.al*. [30]	Positive support from health care agencies will reduce the self-medication.
18	2020	Alhomound F., *et.al* [31]	Mass movement is required to educate the people about the SMs positive and negative sides and this will help to control the SM to a great extent.
19	2021	Sineenart C., *et.al* [32]	According to the study findings, it is recommended that more information about the risks of self-medication, drug adverse reactions, antibiotic stewardship, more supervision of the prohibition of over-the-counter drugs and selling practices, and adequate facilities for people's access to medical services be provided at the policy level.
20	2021	Abebe B.M., *et al*. [33]	More than two-thirds of the study participants practiced self-medication. Being from an urban area, having access to a private pharmacy, and higher year of study positively affect self-medication practice.
21	2021	Wuraola A.S., *et. al* [34]	Prevalence of self-medication among the studied healthcare students is moderately high, while approximately half demonstrates good knowledge and perception of self-medication practices. Stimulation for self-medication practice largely arise from the perception of treating minor ailments. This underscores a need for advocacy on responsible self-medication practice during the formal training of these future health professionals, in order to avert its imminent/widespread negative consequence.

Objectives of the study

To study the potential benefits at individual level and community level

To understand potential risks at individual and community level

To contribute to the existing literature related to self-medication

Scope of Study

The present study will be restricted to the various parts of semi-urban and rural areas of Odisha. It will include doctors, pharmacists, and members representing the study areas. The participants will include both male and female members of the study areas.

Methodology

The present research includes both primary and secondary sources. In this direction, data is collected from all parts of the state of Odisha and tries to represent all stakeholders. This study is based on cluster and random sampling. The attributes are finalized after pilot study and focus group discussion with various stake holders in the study areas. Eight focus group discussions conducted over the period of six months consisting of 10 members in each group and providing equal representation in the group from all sections of the society. Initially 29 variables were identified, however after the pilot study and focus group discussions the variable got restricted to 23 only. This includes 5 for the potential benefits of self-medication at the individual level, 5 from the potential benefits of self-medication at community level, 10 from potential risks involved in self –medication at individual level and rest from the potential risks of self-medication at community level. Weighted score method is used for analysis. In this regard each attribute is measured under 5-pointLikert type scale. For strongly agree- weight 4 was allotted, for agree- weight 3 was allotted, for neutral- weight 2 was allotted, for disagree weight 1 was allotted and for strongly disagree weight 0 was allotted (Table 7).

Calculation of respondents' perception: Ideal and least score

Ideal score is calculated by multiplying the number of respondents in such category with (4) and product with total number of variables. Least score calculated by multiplying the number of respondents in each category with (0) and product with number of attributes in the group or category (Table 3).

Table 3: Computation of ideal score and least score

Category	Potential benefits of self-medication at individual level (5 attributes)		Potential benefits of self-medication at Community level (5 attributes)		Potential risks of self- medication at individual level (10 attributes)		Potential risks of self-medication at Community level (3 attributes)	
	Ideal score	Least score	Ideal score	Least score	Ideal score	Least score	Ideal score	Least score
Male respondents of rural areas (96)	1920	0	1920	0	3840	0	1152	0
Female respondents of rural areas (91)	1820	0	1820	0	3640	0	1092	0
Male respondents of semi-urban areas (103)	2060	0	2060	0	4120	0	1236	0
Female respondents of semi-urban areas (94)	1880	0	1880	0	3760	0	1128	0

Sample size for unknown population

N= Z^2 (P) (1-P)/ C^2

$(1.96)^2(0.5)(1-0.5)/(0.05)^2$

= 384

Where as

Z= Standard normal deviation set at 95% confidence level is 1.96

P= Percentage picking choice or response is 0.5

C= Confidence interval is 0.05

Results and Discussion

As seen in Table 4, 24.48% belongs to age group of 18-30, 34.38% in the age group of 30-50 and remaining were above 50 years of age. Out of the

total respondents, 51.82% were male and rest was female. In case of marital status 14.82% were unmarried and rests were married. In case of education 32.81% were school dropouts, 32.03 were under graduates, 15.36% were graduates, 10.94% were post graduates and rest were other professionally qualified persons.

On the basis of place of stay 48.70% were rural back ground and rest were semi-urban back ground. In case of regular monthly income 11.45% were above Rs50,000 income, 13.73% having income range of Rs25,000-Rs50,000, 32.29% were in the income bracket of Rs10,000-Rs25,000 and remaining falls in the group of below Rs10,000. In case of amount spent on medical expenses purpose 50% participants below Rs1,000, 36.20% respondents between Rs1,000-Rs5,000 and rest spent more than Rs5,000 per month.

Table 4: Socio- Demographic Profile of the respondents

Variables	Category	Frequency	Percentage
Age in years	18-30	94	24.48
	30-50	132	34.38
	50 above	158	41.14
Sex	Male	199	51.82
	Female	185	48.18
Marital status	Married	327	85.16
	Unmarried	57	14.84
Education	School dropout	126	32.81
	Under graduate	123	32.03
	Graduate	59	15.36
	Post graduate	42	10.94
	Other professionally qualified	34	8.86
Place of stay	Rural	187	48.70
	Semi urban	197	51.30
Monthly income	0-10,000	98	25.53
	10,000- 25,000	124	32.29
	25,000- 50,000	118	30.73
	50,000 and above	44	11.45
Amount spent on medicine monthly	Below Rs1,000	192	50.00
	1000-5000	139	36.20
	5000- above	53	13.80

Source: Primary data

In Table 5, responding to the symptoms for self-medication for headache 21.61%, 24.48% for respiratory, 23.96% for fever, 13.80% for eye disease, 5.99% for skin disease, 7.29% for gastrointestinal disease and rest for others. In regard to duration of illness before using self-medication, within 12 h 30.99%, within 24 hours 24.22%, within 48 hours 22.66%, within 72 h 8.85%, within a week 7.03% and remaining more than a week.

Responding to the question related to reasons for self-medication, 19.79% believe that disease is not serious, 16.67% believe that due to emergency, 10.94% feels that due to prior experience, 10.16% believe that less expensive in terms of time and money, 18.49% due to suggestion by family members, 11.46% feel that suggestion by friends and rest feel that due to old prescriptions.

Responding to the drug request way or type, 10.02% by describing the shape or another mode, 13.80% by presenting piece of paper where name of the drug is written, 16.67% by showing old sample/ package of the drugs,34.38% by Telling symptoms of illness, rest by mentioning the name of the drugs (Table 6).

Responding to the type of drugs requested 24.74% requested for analgesic/ antipyretic, 20.31% requested for antimicrobial, 17.45% requested for respiratory drugs, 19.01% requested for gastrointestinal drugs, 11.46% requested for vitamin and remaining for others. Responding to the source of drugs for self-medication, 51.30% purchased from pharmacists, 10.94% used the unused medicine at home,

23.18% from friends and family members, rest from herbalists.

Responding question about knowledge of drug requested, 55.73% opined that name of the drug, 10.94 feel that due to indication, 9.24% feel dose, 7.29% feel how to use, 9.64% knowledge about frequency, 3.13% knowledge about duration and rest feel that storage at home. Responding to the source of information for self-medication, 22.14% aware of the medicine, 9.90% read leaflet or promotional material, 20.57% advised by doctors, nursing staff or health workers without prescription, 24.22% advised by friends and relatives, 8.85% from internet and rest from pharmacists those working in pharmacy.

Table 5: Symptoms for self-medication and duration of illness before self-medication

Variables		Frequency	Percentage
Symptoms do participants use self-medication	Headache	83	21.61
	Respiratory	94	24.48
	Fever	92	23.96
	Eye disease	53	13.80
	Skin disease	23	5.99
	Gastrointestinal disease	28	7.29
	Others	11	2.87
Duration of illness before using self-medication	Within 12 hours	119	30.99
	Within 24 hours	93	24.22
	Within 48 hours	87	22.66
	Within 72 hours	34	8.85
	Within a week	27	7.03
	More than a week	24	6.25

Source: Primary data

Table 6: Reason, source of drug information for self-medication etc

Particulars	Details	Frequency	Percentage
Reasons for self-diagnosis or self-medication	Disease is not serious	76	19.79
	Emergency use	64	16.67
	Prior experience of drugs	42	10.94
	Less expensive in terms of time and money	39	10.16
	Suggestion by family members	71	18.49
	Suggestion by friends	44	11.46
	Old prescriptions	48	12.49
Drug request way/ type	By mentioning the name of the drugs	97	25.26
	By Telling symptoms of illness	132	34.38
	By showing old sample/ package of the drugs	64	16.67
	By presenting piece of paper where name of the drug is written.	53	13.80
	By describing the shape or another mode	38	10.02
Type of drugs requested	Analgesic/ antipyretic	95	24.74
	Antimicrobial	78	20.31
	Respiratory drugs	67	17.45
	Gastrointestinal drugs	73	19.01
	Vitamins	44	11.46
	Others	27	7.03
Sources of drugs for self -medication	Purchased from pharmacists	197	51.30
	Unused medicines at home	42	10.94
	From friends and family members	89	23.18
	From herbalists	56	14.58

Continue of Table 6

Particulars	Details	Frequency	Percentage
What is the knowledge about drug requested? (If any specific drug is requested)	Name of the drug	214	55.73
	Indication	42	10.94
	Dose	37	9.64
	How to use	28	7.29
	Frequency	37	9.64
	Duration	12	3.13
	Storage at home	14	3.63
Source of information for self-medication	Aware of the medicine	85	22.14
	Read leaflet or promotional material	38	9.90
	Advised by doctors, nursing staff or health workers without prescription	79	20.57
	Advised by friends and relatives	93	24.22
	From internet	34	8.85
	From pharmacists those working in pharmacy	55	14.32

Source: Primary data

Table 7: Weighted score of various respondents

Attributes	Aggregate weighted score			
	Male respondents of rural areas	Female respondents of rural areas	Male respondents of semi-urban areas	Female respondents of semi-urban areas
Potential benefits of self-medication at individual level				
An active role for the own health care	302	315	340	300
Self –reliance for preventing minor disease	358	289	320	292
Learning opportunities on specific health issues	313	305	351	292
Saving of time and energy	331	305	349	305
Saving in consultancy fees for minor health care issues.	325	295	316	309
Total score	**1629**	**1509**	**1676**	**1498**
Ideal score	**1920**	**1820**	**2060**	**1880**
Least score	**0**	**0**	**0**	**0**
Percentage of total score to ideal score	**84.84**	**82.91**	**81.36**	**79.68**
Potential benefits of self-medication at Community level				
Saving scare medical resources for minor treatments /diseases	325	279	332	309
Lowering the cost of community funded health care programs	303	293	305	296
Reducing absenteeism from work places due to minor health care issues.	266	282	308	286
Managing the health care services where health care workers are in sufficient.	271	301	333	320
Extending the health care services to the needy people in rural and remote areas	313	297	334	295
Total score	**1478**	**1452**	**1612**	**1506**
Ideal score	**1920**	**1820**	**2060**	**1880**
Least score	**0**	**0**	**0**	**0**
Percentage of total score to ideal score	**76.98**	**79.78**	**78.25**	**80.11**
Potential risks of self-medication at individual level				
Incorrect self- diagnosis	299	296	333	309
Failure to seek appropriate medical assistance immediately.	331	283	299	296
Incorrect choice of therapy	304	284	301	297
Failure to recognize pharmacological risks	306	282	315	294
Rare but severe adverse effects	323	279	310	314

Failure to report present self-medication to the physician	301	283	331	301
Failure to report or recognize the adverse drug reactions.	307	269	347	308
Incorrect rout of self-administration	306	268	311	325
Inadequate or excessive dosage	312	266	320	306
Excessively prolonged use	308	277	307	305
Total score	**3097**	**2787**	**3174**	**3055**
Ideal score	**3840**	**3640**	**4120**	**3760**
Least score	**0**	**0**	**0**	**0**
Percentage of total score to ideal score	**80.65**	**76.57**	**77.04**	**81.25**
Potential risks of self-medication at Community level				
Increased drug induced disease	318	298	334	309
Wasteful public expenditure	326	307	325	324
Will lead to family disturbance due to death of member of family	340	328	383	352
Total score	**984**	**933**	**1042**	**985**
Ideal score	**1152**	**1092**	**1236**	**1128**
Least score	**0**	**0**	**0**	**0**
Percentage of total score to ideal score	**85.42**	**85.44**	**84.30**	**87.32**

Source: Annexure A, B, C and D

Potential benefits of self-medication at individual level

In case of male respondents of rural areas, self-reliance for preventing minor disease gets first preference followed by saving of time and energy, saving in consultancy fees for minor health care issues, Learning opportunities on specific health issues and an active role for the own health care.

In case of female respondents of rural areas, an active role for own health care stood first preference followed by equal weight by learning opportunities on specific health issues and saving of time and energy, saving in consultancy fees for minor health care issues and self –reliance for preventing minor disease.

In case of male respondents of semi-urban area, learning opportunities on specific health issues, saving of time and energy, an active role for own health care, self –reliance for preventing minor disease and saving in consultancy fees for minor health care issues are the order of preference.

In case of female respondents of semi-urban areas, the order of preference were saving in consultancy fees for minor health care issues, , saving of time and energy, an active role for own health care and equal weight for self –reliance for preventing minor disease and learning opportunities on specific health issues.

The overall percentage of total score to ideal score taking all the attributes for male respondents of rural areas, female respondents of rural areas, male respondents of semi-urban area and female respondents of semi - urban areas were 84.84%, 82.91%, 81.36% and 79.68% respectively.

Potential benefits of self-medication at community level

For female respondents of rural areas, managing the health care services where health care workers are in sufficient was first preference followed by extending the health care services to the needy people in rural and remote areas, lowering the cost of community funded health care programs, reducing absenteeism from work places due to minor health care issues and saving scare medical resources for minor treatments /diseases.

For male respondents of rural areas, the order of preference was saving scare medical resources for minor treatments /diseases, extending the health care services to the needy people in rural, lowering the cost of community funded health care programs, the health care services where health care workers are in sufficient and reducing absenteeism from work places due to minor health care issues.

In case of male respondents of semi-urban areas, the preference order was extending the health care services to the needy people in rural, managing the health care services where health care workers are in sufficient, scare medical resources for minor treatments /diseases,

reducing absenteeism from work places due to minor health care issues and lowering the cost of community funded health care programs,

Responding to the questions by the female participants in the semi-urban areas, managing the health care services where health care workers are in sufficient stood first choice followed by saving scare medical resources for minor treatments /diseases, lowering the cost of community funded health care programs, extending the health care services to the needy people in rural and reducing absenteeism from work places due to minor health care issues.

The overall percentage of total score to ideal score taking all the attributes for male respondents of rural areas, female respondents of rural areas, male respondents of semi-urban area and female respondents of semi - urban areas were 76.98%, 79.78%, 78.25% and 80.11% respectively.

Potential risks of self- medication at community level

Joining the survey, the female respondents of semi-urban areas, the order of preferences -will lead to family disturbance due to death of member of family stood first followed by wasteful public expenditure, and increased drug induced disease.

Similarly for the male respondents of semi-urban areas, will lead to family disturbance due to death of member of family stood first, increased drug induced disease and wasteful public expenditure.

In case of female respondents of rural areas- will lead to family disturbance due to death of member of family stood first followed by wasteful public expenditure, and increased drug induced disease.

For the male respondents of rural areas- will lead to family disturbance due to death of member of family stood first followed by wasteful public expenditure, and increased drug induced disease.

Potential risks of self-medication at individual level

In case of male respondents of rural areas, the opinion on the basis of weight score were failure to seek appropriate medical assistance immediately, followed by rare but severe adverse effects, Inadequate or excessive dosage, excessively prolonged use, failure to report or

recognize the adverse drug reactions, failure to recognize pharmacological risks & incorrect rout of self-administration, incorrect choice of therapy and incorrect self- diagnosis.

For the male respondents of semi-urban areas, the opinion was failure to report or recognize the adverse drug reactions flowed by incorrect self-diagnosis, failure to report present self-medication to the physician, inadequate or excessive dosage, failure to recognize pharmacological risks, incorrect rout of self-administration, rare but severe adverse effects, excessively prolonged use, incorrect choice of therapy and failure to seek appropriate medical assistance immediately.

For the female rural respondents, the preferences for the various variables were, incorrect self-diagnosis, followed by incorrect choice of therapy, equal weight for the failure to seek appropriate medical assistance immediately & failure to report present self-medication to the physician , failure to recognize pharmacological risks, rare but severe adverse effects, excessively prolonged use, failure to report or recognize the adverse drug reactions, Incorrect rout of self-administration and inadequate or excessive dosage.

Finally for the female respondents of sub-urban areas the perception for the various attributes according to first choice and followed by others were, incorrect rout of self-administration, incorrect self- diagnosis, failure to report or recognize the adverse drug reactions, inadequate or excessive dosage, excessively prolonged use, Failure to report present self-medication to the physician, incorrect choice of therapy, failure to seek appropriate medical assistance immediately and failure to recognize pharmacological risks.

The overall % of total actual score to ideal for the male respondents of rural areas, female respondents of rural areas, male respondents of semi-urban area and female respondents of sub-urban areas were 80.65%, 76.57%, 77.04% and 81.25% respectively (Figures 1-4).
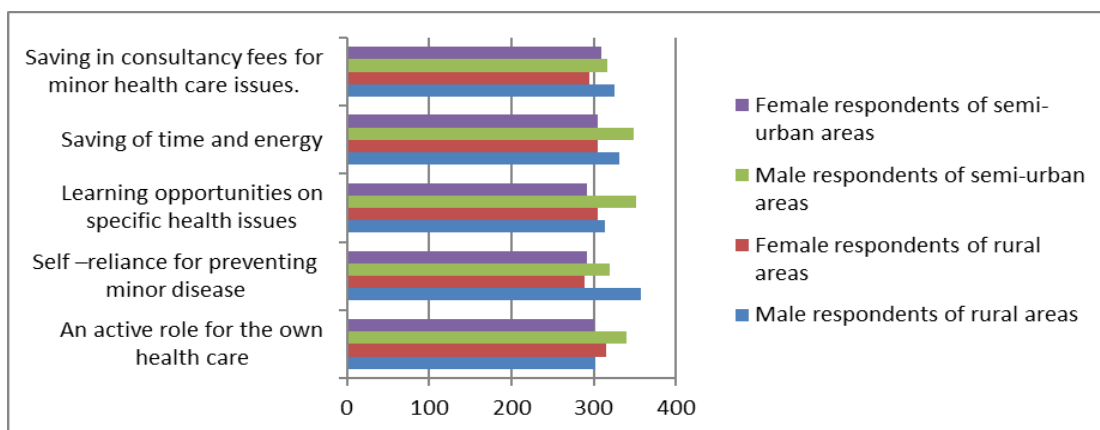
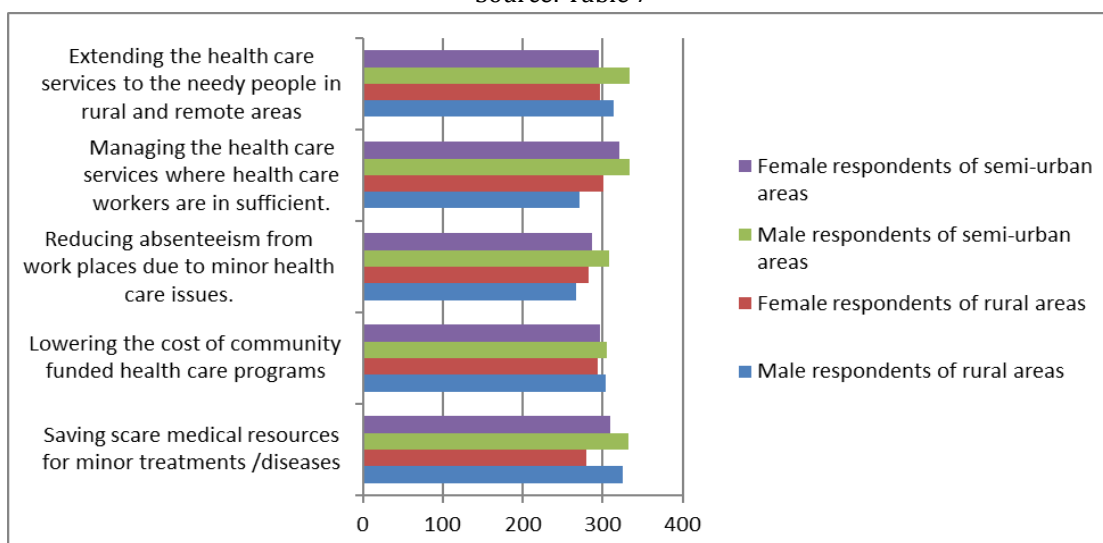**Figure 1:** Potential benefits of self- medication at Individual level

Source: Table 7

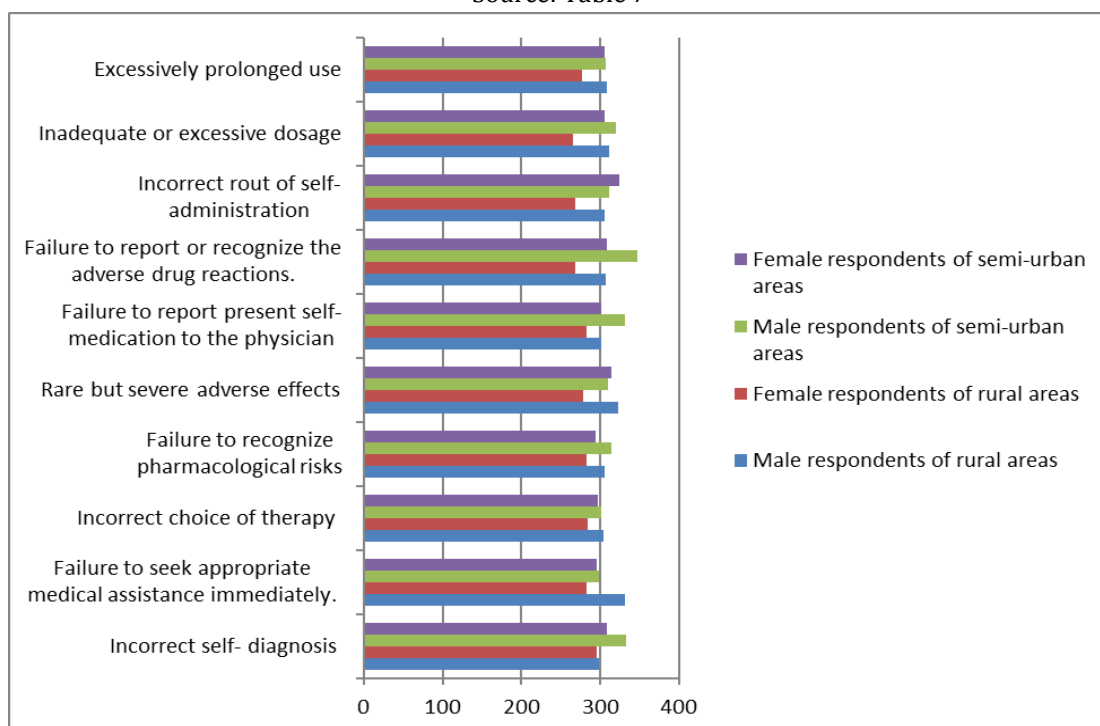**Figure 2:** Potential benefits of self- medication at Community level

Source: Table 7

Figure 3: Potential risks of self- medication at Individual level
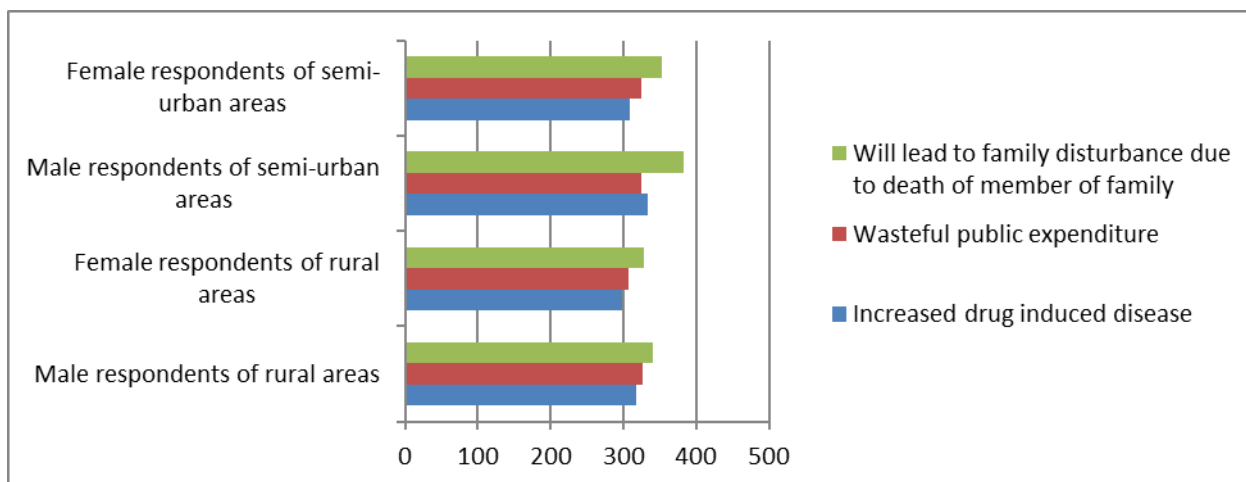
Source: Table 7

Figure 4: Potential risk of Self Medication at Community level
Source: Table 7

Suggestions

✓ Role of health workers is more important. They should counsel the people about the negative side of self-medication and advise them to avoid such practices which will help to control the diseases.

✓ Proper information of usage of drugs should be informed such as the frequency and quantity to be used.

✓ Proper health education should be given to the patients.

✓ Pharmacists can play a crucial role for motivating people against the self-medication.

✓ Pharmacists should guide the patients to consult the physicians before consuming the medicines.

✓ Family members and friends should restrain from suggesting unwanted medicines.

Conclusions

SM is a very contemporary topic and we experience in day-to-day life. This is being experienced in the day to day life among all of us. It is very core area in health care service and at the same time very major concern for all the health care providers. It may provide better health care with better cost efficiency and saving of time but inappropriate SM practices will lead to serious health issues. SM may lead to incorrect diagnosis, adverse effects, drug interaction and antibiotic resistance etc. There are various laws to control the SM but various challenges related to people in general cannot be ignore. There is need for creating awareness among the general public is the need of the hour to have some desired control in self-medication. There is a need for a movement among the public for awareness about the positive side and negative impact of SM. Most of the time it was found that people try to adopt SM practices due to influence of family members and friends. This needs to be controlled if the nature of disease is serious and for the minor diseases it is fine. Immediate qualified doctor's consultation should be followed instead of SM. It was also observed during the study at individual and community level, and most of the respondents practice the SM with the consultation of pharmacists. These practices should be minimized and those pharmacists should counsel the public to visit the hospitals and take the advice of the specialist and use the medicine. This approach will have more impact for controlling the self-medication.

Authors' contributions

All authors contributed toward data analysis, drafting and revising the paper and agreed to be responsible for all the aspects of this work.

Conflict of Interest

We have no conflicts of interest to disclose

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