

Investigation of Over the Counter (OTC) Pharmaceutical Brands Preferred by New Age Indian Women

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Abstract

The study investigates the preference of OTC Medicines among the pharmaceutical brand. OTC Medicines means medicines lawfully permitted to sell "Over the Counter", i.e. devoid of the prescription of a Registered Medical Practitioner. In India, although the expression has no lawful acknowledgment, all the medicines that are not incorporated in the list of 'prescription only medicines' are measured as non-prescription medicines (or OTC Medicines). Pharmaceutical over the counter products (OTC) be the medicines which can be sold without prescription. Also termed as "Non Prescription Medicines" discussed by Arti(2010). This article talks about top pharmaceutical company brands Aventis Pharma, GlaxoSmithKline, Surya Pharma, Torrent Pharma, Glenmark, Divis Labs, Biocon, Orchid Chemical, Abbott Indi, Sterling Bio, Alembic Pharma etc, the brand preference of New Age Indian Women. A 736 questionnaire was composed of different age and different New Age Indian Women in around Urban :Chennai ;Semi Urban :Neyveli ; Rural :Soolurpet ;Tirupur. The findings of the study shows that the highest preferred generic brand is balms, Medicines chosen for fever is Crocin, Idoex is most ideal pain balms, volini spray is also most preferred brand, ENO is ideal Antacid brand, Sadiron is another chosen brand for cough and cold, the other brands are Metfal SPS, Johnson, Revital are the other favored brands. The study will be a great instrument for the pharmaceutical companies brands to understand today's New Age Indian Women.

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I. INTRODUCTION

Over-the-counter or non-prescription drugs are one of the vital and effortlessly accessible in public health aids to conduct frequent and mild circumstances or symptomatic relieve. Over-the-counter drugs include of a choice of products from acne treatment to cough and cold products. In the

past, pharmaceutical manufacturers relied on physicians and pharmacists to offer the drug information to the patients. However, with the advent of technology, medications came to be marketed to the consumers, by means of media, thus facilitate them to create drug option discussed by Priyanka(2012).

Pharmacists are one of the mainly available health care professionals so as to assist consumers construct the nearly all the individual choices about the use of OTC drugs. Since pharmacists are available at the point of purchase, they can assist the patients in the selection of appropriate OTC products, help them understand detailed health information and refer the patient to a physician. Referred by Melissa M. Dinkins P (2012). Kalpesh B. prajapati (2013) states that the most of people at some of time use OTC medicines, he also claims that the brand names are the largely favoured characteristic of meticulously choosing the OTC medicines, Kohi & Buller (2013), of this study emphasize the incongruity flanked by consumers' viewpoint and account for purchasing OTC medicines. Augmented pains by healthcare source to instruct New Age Indian women(G.Rajini and Krithika.M ,2017) concerning generic OTC medicines which aid in decisions.

II. OBJECTIVE OF THE STUDY

To investigate the preference of OTC pharmaceutical medicinal brands of New Age Indian Women.

III. MATERIALS & METHODS

The study computed Cronbach's alpha reliability test,the study shows 0.991, which shows to

facilitate all the factors have alpha value greater than 0.7, indicating the evidence of reliability and the overall reliability of the instrument is 0.99. The study is descriptive in nature and sampling design is stratified random sampling. Around 736questionnaire were collected from New Age Women age group between 18 to 53 years literateGen X,XennialsY and Millennial .Areas like Urban :Chennai ;Semi Urban :Neyveli ;Rural :Soolurpet ;Tirupur 200 questionnaire were distributed to these four areas.

The questionnaire were circulated through Google forms, online questionnaire, questionnaire was disseminated in pharmacy outlets, Hospitals/ Clinics, shopping malls, exclusive Clinic, ladies hostel in and around Tamil Nadu and borders of Andhra Pradesh . Secondary data was collected in form of literature reviewed from numerous nationwide and worldwide journals, websites, manuscripts, online databases and reports

IV. DESCRIPTIVES OTC MEDICINES PURCHASED FOR VARIOUS HEALTH PROBLEMS

The following table is the Range,Mean value and Standard deviation for the brands obtained for numerous common health problems by the respondents .The scale is five point with Intensities ranging from 5-Always ,4-Most of the time,3-Sometimes ,2-Rarely and1-Never .

Table No 1 Generic OTC Medicines Purchased

Generic OTC Medicines Purchased	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Crocini	1	5	3.47	1.239
Balms	1	5	3.49	1.269
Vicks inhaler	1	5	3.42	1.469
Bandaid	1	5	3.42	1.413

Metacin	1	5	3.28	1.330
ENO	1	5	3.16	1.495
Revital	1	5	2.79	1.423
Garlic pearl	1	5	2.51	1.259
Gelosil	1	5	2.63	1.438
Saridon	1	5	2.86	1.631
Benedryl cough Syrup	1	5	2.91	1.396
Volini spray	1	5	3.44	1.385
Mefal spas	1	5	2.95	1.510
Multivitamin	1	5	2.61	1.379
Iron	1	5	2.73	1.409
Calcium	1	5	2.61	1.453
Pain relief	1	5	2.75	1.394

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for Generic OTC Medicines purchased is the Balms with mean value 3.49 followed by Crocin brand with the mean value is

3.47 followed by Band aid & vicks inhaler with mean value 3.42 with standard deviation value 1.269,1,239,1.413 & 1.469 respectively, the least preferred generic brand is Garlic pearl brand with mean value 2.51 with standard deviation 1.259.

Table No2 . OTC Medicines purchased for Fever

OTC Medicines for Fever	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Crocin	1	5	3.41	1.398
Fevago	1	5	2.53	1.459
Calpol	1	5	3.16	1.406
Dolo 650	1	5	3.16	1.410
P 650	1	5	2.91	1.394

Tylenol	1	5	2.27	1.395
Neuromol	1	5	2.09	1.315
Tydol	1	5	2.00	1.239
Panadol	1	11	2.07	1.408
Disprol	1	5	1.92	1.227

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for fever is the Crocinbrand with the mean value is 3.41 followed by Calpol with mean value

3.16, followed by Dolo650 with mean value 3.16 with standard deviation value 1.398, 1.406, 1.410 respectively, the least preferred OTC medicines for fever is Tydol brand with mean value 2.00 with standard deviation 1.239.

Table No. 3 OTC Medicines Purchased for Pain in Balm Form

OTC Medicines for Pain in balm form	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Zandu	1	5	3.48	1.548
Iodex	1	5	3.49	1.380
Vicks	1	5	3.47	1.315
Moov	1	5	3.37	1.335
Himalaya	1	5	2.95	1.388
Amrutanjan	1	5	2.96	1.414
Tiger	1	5	2.90	1.366
Kajah	1	5	2.54	1.475
Monisons	1	5	2.23	1.428
Other systems	1	5	2.37	1.434

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for pain in Balm form is Iodex with mean value

3.49 followed by Zandubrand with the mean value is 3.48 with standard deviation value 1.548, 1.380 respectively, the least preferred OTC Medicines for pain balm form is Monisonsbrand with mean value 2.23 with standard deviation 1.428.

Table No. 4 OTC Medicines Purchased for pain in spray form

OTC Medicines for Pain in spray form	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Volini	1	5	3.60	1.359
PRS	1	5	2.81	1.512
Relispray	1	11	2.65	1.550
Moov	1	5	3.23	1.416
Himal	1	5	2.71	1.266
Amru	1	5	2.88	1.400
Deep heat	1	5	2.58	1.553
Deep Freeze	1	5	2.38	1.470
Combiflam	1	5	2.32	1.427
Biofreeze	1	5	2.17	1.453

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for pain in spray form with mean value 3.60 followed

by Moovbrand with the mean value is 3.23 with standard deviation value 1.359, 1.416 respectively, the least preferred OTC Medicines for pain in spray form is Biofreeze brand with mean value 2.17 with standard deviation 1.453.

Table No. 5 OTC Medicines Purchased: Antacid

OTC Medicines Antacid	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Eno	1	5	3.74	1.452
Gelusil	1	5	3.58	1.375
Digenegel	1	5	3.17	1.625
Aluminium Hydroxide	1	5	2.57	1.542
Gaviscon	1	5	2.61	1.548

Mylanta	1	5	2.34	1.425
Disogel	1	5	2.39	1.456
Novagel	1	5	2.27	1.336
Zantac	1	5	2.40	1.353
Rantac	1	5	2.58	1.529

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for Antacid is Eno with mean value 3.74 followed by

Gelusil brand with the mean value is 3.58 with standard deviation value 1.452, 1.375 respectively, the least preferred OTC Medicines for Antacid form is Novagel brand with mean value 2.27 with standard deviation 1.336.

Table No. 6 OTC Medicines Purchased for Cough and Cold

OTC Medicines for Cough and Cold	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Saridon	1	5	3.22	1.480
Dcold	1	5	3.04	1.450
Vicksaction500	81	5	3.09	1.487
AscorilC	1	5	2.78	1.499
Actified	1	5	2.44	1.469
Benadryl	1	5	2.68	1.439
Tussionex	1	5	2.21	1.348
CPM	1	5	2.14	1.355

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for Cough & Cold form with mean value 3.22 followed by Vicks Action 500 brand with the

mean value is 3.09 with standard deviation value 1.480, 1.487 respectively, the least preferred OTC Medicines for Cough & cold form is CPM brand with mean value 2.14 with standard deviation 1.355.

Table No. 7 OTC Medicines Purchased: Multivitamin

OTC Medicines Multivitamin	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Revital	1	5	3.00	1.546
AtoZ	1	5	2.66	1.518
Supradyn	1	5	2.60	1.550
Becosules	1	5	2.57	1.448
Diataal	1	5	2.19	1.357
Diavit	1	5	2.20	1.436
Neurovit	1	5	2.20	1.404
Zincovit	1	5	2.42	1.417
MultiviteFm Omega	1	5	2.34	1.365
Ecodplus	1	5	2.19	1.348

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for Multivitamin form with mean value 3.00

followed by A to Z brand with the mean value is 2.66 with standard deviation value 1.546, 1.518 respectively, the least preferred OTC Medicines for Multi vitamin Ecod plus form brand with mean value 2.19 with standard deviation 1.348.

Table No. 8 OTC Medicines Purchased: Band Aids /Plasters

OTC Medicines Band Aids /Plasters	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Johnson	1	5	3.41	1.386
Tigerplast	1	5	2.58	1.450
Hansaplast	1	5	2.66	1.401
Kakao	1	5	2.14	1.308
Hellokitty	1	5	2.25	1.397
Himom	1	5	2.10	1.259

Aeroplast	1	5	2.06	1.374
Dettol	1	5	3.83	1.283
Nexcare	1	5	2.60	1.521
Elastoplast	1	5	2.44	1.466

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for Band Aids/ Plasters Johnson with

mean value is 3.41 with standard deviation value 1.386, the least preferred Band Aids/ Plasters is Dettol with the mean value is 3.83 with standard deviation 1.283.

Table No. 9 OTC Medicines Purchased: Abdominal Pain

OTC Medicines for Abdominal Pain	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Mefal SPAS	1	5	3.11	1.573
SpascrushM	1	5	2.52	1.575
DemolM	1	5	2.46	1.559
Intaspa	1	5	2.31	1.449
Spasmonilplus	1	5	2.25	1.444
Mefkindspas	1	5	2.23	1.402
Mefnumspas	1	5	2.14	1.437
Speedexspas	1	11	2.27	1.598
Cyclopam	1	5	2.53	1.524
Spasmofirst	1	5	2.21	1.417

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for Abdominal Pain is the Mefal SPAS brand with the mean value is 3.11 followed

by SpascrushM brand with mean value 2.52 with standard deviation value 1.573, 1.575 the least preferred abdominal pain is Mefnumspas brand with mean value 2.14 with standard deviation 1.43.

Table No. 10 OTC Medicines Purchased:Iron supplement

OTC Medicines Iron supplement	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Nature made	1	5	3.19	1.672
Jamiesoniron	1	5	2.63	1.623
Ferrovit	1	5	2.66	1.669
Ferretts	1	5	2.42	1.575
Autrin	1	5	2.29	1.468
Springvalley	1	5	2.35	1.461
Ferroplus	1	5	2.20	1.411
FerroDenk	1	5	2.08	1.322
VitronC	1	5	2.34	1.506
Dexorange	1	5	2.50	1.597

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for iron supplement is the Nature

made brand where the mean value is 3.19 with standard deviation value 1.67, the least preferred iron supplement is FerroDenk brand with mean value 2.08 with standard deviation 1.32.

Table No. 11 OTC Medicines Purchased:Calcium supplement

OTC Medicines Calcium supplement	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
Citracal	1	5	2.79	1.610
Naturemade	1	5	2.75	1.536
Caltrate	1	5	2.46	1.464
Bone strength	1	5	2.36	1.309
Calcium Sandoz	1	5	2.50	1.463
Oscal	1	5	2.08	1.202

Shelcal	1	11	2.16	1.425
Milical	1	5	2.06	1.256
Seacal	1	5	2.18	1.387
Cipcal	1	5	2.37	1.555

Source: Compiled by the author

INFERENCE

Based on the results, it indicates that the highest mean value for calcium supplement is the Citracal brand where the mean value is 2.79 with standard deviation value 1.610, followed by the Nature made with mean value 2.75 with standard deviation 1.536, least preferred calcium supplement is Milical with mean value 2.06 with standard deviation 1.25.

V. DISCUSSIONS & CONCLUSION

Descriptive statistics showed over all mean score, for the entire items is and standard deviation indicates is less than the mean values which indicates the data is in normal distribution curve..

As the study is about New age women the sample constitutes nearly 56.5 percent in that group .In addition to that 30 percent belong to Gen Z .Just 13 percent are Gen X .Thereby the study results can be generalised to Gen Z also .

The study has covered women across various profession in a considerable manner .The work experience is 1 to 5 years for 34 % and 22.7 % for 6 to 10 years .Nearly 35 % have Monthly income up to INR 20,000 and another 35% have monthly income between INR 20,001 to 40,000.61% married and rest unmarried, 40% of them work in private sector,63.2 are in nuclear family.

Based on the mean values we found that the most common health problem they face was Common cold followed by headache and then by gastritis.

Most of the New Age Indian women visit doctors for this common problems .the second highest

score was for self – medication and home remedies .Further they consult friends and visit websites .The least score was for referring pharmacist. Thereby this study plays a vital role as it finds out how self medication happens.

Women consumers prefer to purchase their OTC medicines in any pharmacy store rather than chain of pharmacy, general store or retail stores.

Based on the results, it indicates that the highest mean value for Generic OTC Medicines purchased is the Balms with mean value 3.49 followed by Crocin brand with the mean value is 3.47 followed by Band aid & vicks inhaler with mean value 3.42 with standard deviation value 1.269,1,239,1.413 & 1.469 respectively, the least preferred generic brand is Garlic pearl brand with mean value 2.51 with standard deviation 1.259.

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for fever is the Crocin brand with the mean value is 3.41 followed by Calpol with mean value 3.16, followed by Dolo650 with mean value 3.16 with standard deviation value 1.398,1,406.,1.410 respectively, the least preferred OTC medicines for fever is Tydol brand with mean value 2.00 with standard deviation 1.239.

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for pain in Balm form is Iodex with mean value 3.49 followed by Zandu brand with the mean value is 3.48 with standard deviation value 1.548,1,380 respectively, the least preferred OTC Medicines for pain balm form is Monisons brand

with mean value 2.23 with standard deviation 1.428.

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for pain in spray form with mean value 3.60 followed by Moovbrand with the mean value is 3.23 with standard deviation value 1.359, 1.416 respectively, the least preferred OTC Medicines for pain in spray form is Biofreeze brand with mean value 2.17 with standard deviation 1.453.

Based on the results, it indicates that the highest mean value for OTC Medicines purchased for Antacid is Eno with mean value 3.74 followed by Gelusil brand with the mean value is 3.58 with standard deviation value 1.452, 1.375 respectively, the least preferred OTC Medicines for Antacid form is Novagel brand with mean value 2.27 with standard deviation 1.336.

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Based on the results, it indicates that the highest mean value for OTC Medicines purchased for Multivitamin form with mean value 3.00 followed by A to Z brand with the mean value is 2.66 with standard deviation value 1.546, 1.518 respectively, the least preferred OTC Medicines for Multi vitamin Ecod plus form brand with mean value 2.19 with standard deviation 1.348.

Based on the results, it indicates that the highest mean value for Band Aids/ Plasters Johnson with mean value is 3.41 with standard deviation value 1.386, the least preferred Band Aids/ Plasters is Dettol with the mean value is 3.83 with standard deviation 1.283.

Based on the results, it indicates that the highest mean value for Abdominal Pain is the Metfal SPAS brand with the mean value is 3.11 followed by SpascrushMbrand with mean value 2.52 with standard deviation value 1.573, 1.575 the least preferred abdominal pain is Mefnumspasbrand with mean value 2.14 with standard deviation 1.43.

Based on the results, it indicates that the highest mean value for iron supplement is the Nature made brand where the mean value is 3.19 with standard deviation value 1.67, the least preferred iron supplement is FerroDenk brand with mean value 2.08 with standard deviation 1.32.

Based on the results, it indicates that the highest mean value for calcium supplement is the Citracal brand where the mean value is 2.79 with standard deviation value 1.610, followed by the Nature made with mean value 2.75 with standard deviation 1.536, least preferred calcium supplement is Milical with mean value 2.06 with standard deviation 1.25.

The underlying study is an attempt to comprehend the brand preference of the 'Over the

Counter(OTC)' among various health issues from normal generic brand preference, purchase of OTC medicines for cold, fever, cough, pain balms, pain balm spray, antacid medicines, Multivitamin, calcium supplement and iron supplement medicines etc., each and every OTC medicines top more priority of New Indian Age Women.

The results disclose that acquaintance of OTC medicines is the key issue in decisive the recurring to acquire the OTC medicines. The OTC market in India is growing steadily because of its huge inhabitants. Each pharmaceutical concern determine to grasp and enlarge their marketplace share. In the overseas market it is obligatory to give prescription to the pharmacist ahead of purchase of OTC medicines. In India, the retailers don't request for anything previous to give the

medicine apart from hazardous tablets. With this regard the medicine control power has to approach presumptuous to hoist the attentiveness concerning the OTC medicines and the unkind fate of extreme draw on the OTC medicines. The study hence proved that the respondents of our study are aware and purchase the OTC medicine brands when required . Hence the New Indian Women are now clear in buying OTC medicines and they feel safe too use the medicines.

Conflict of interest – The authors assures that there is no conflict of Interest between any parties

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REFERENCES

- [1] Aarti T. More and R.K.Srivastava(2010), “ Aesthetics in Pharmaceutical OTC Marketing,” SIES Journal of Management, April - August 2010, Vol.7(1): 65-96..
- [2] Kohli and Buller (2013), “ Factors Influencing Consumer Purchasing Patterns,” *Southern Medical Journal* & Volume 106, Number 2, February 2013
- [3] Melissa M. Dinkins P. Patient Counseling(2012), “ A Pharmacist in Every OTC Aisle. *US Pharmacist*, “ :OTC Trends supplement. Vol 352010:9-12.
- [4] Prof. Kalpesh B. Prajapati & Prof. Mahesh Patel (2013), “A Study On Consumer’s Buying Behavior Towards OTC products of the Pharmaceutical Industry,” *Namex International Journal of Management Research* Vol. 3, Issue No. 2, July – Dec.2013. ISSN 2250 -2076.
- [5] Rajini, G. And Krithika,M.(2017) Risk factors Discriminating Online Metropolitan Women Shoppers:A behavioural Analysis’,*The International Journal of Cyber*

Behavior,Psychology and Learning,Vol.7,No.1, pp 52-64 .

- [6] Priyanka S. Potnis(2012), “ Ohio Pharmacists’ Perceptions of Over-the-Counter Drug Advertising”, Master of Science Degree in Pharmaceutical Science.