

A Questionnaire Based Study for the Evaluation of over the Counter Usage of Analgesic Drugs among Diabetic Industrial Worker's in Madurai

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Abstract: *Background:* Trend of using OTC drugs is high in India. Due to uncontrolled use of OTC drugs, incidence of delayed diagnosis, complications, treatment failure and drug resistance are increasing. But the awareness of OTC among the industrial workers remain far less from satisfactory. *Aims and Objectives:* To evaluate the knowledge of over the counter usage of analgesic drugs among diabetic industrial workers in Madurai. *Materials And Methods:* A cross-sectional descriptive questionnaire based study conducted among diabetic patients in textile industry, Madurai-involving 100 workers. *Results:* From the results obtained it is observed that the majority of Industrial workers had a poor knowledge about adverse effects and risks of OTC pain killers. Paracetamol is mostly used by the industrial workers (70%). 92% of workers reported that they had been purchasing medicine from a pharmacy on their own. 94% workers relied on pharmacist's recommendation. 58% of workers reported that they preferred OTC mainly because of time. *Conclusion:* Paracetamol is mostly used by the industrial workers. A proper statutory drug control must be implemented, rationally restricting the availability of drugs to the public. So that it reduce the incidence of drug-related mishaps and help in maintaining good health of the individual and society.

Keywords: Over the counter drugs, Diabetes, Industrial workers, Analgesics, Paracetamol

1. Introduction

Over The Counter (OTC) Drugs' means drugs legally allowed to be sold over the counter, without the prescription of a Registered Medical Practitioner¹. In India, the phrase 'over the counter drugs' has no legal recognition, so all the drugs not included in the list of 'prescription drugs' are considered as OTC drugs.

In India, Central Drugs Standard Control Organization (CDSCO) regulates import, manufacture, distribution and sale of drugs and cosmetics by Drugs and Cosmetics Act (DCA) and its subordinate legislation, Drugs and Cosmetics Rules (DCR), 1940. All the non-prescription drugs which are sold over the counter to the general population also fall under these act and legislation.

Trend of using OTC drugs is high in India, particularly among diabetic patients. OTC increases the chances of illicit use of drug and drug dependency². Pain Killers are drugs that help to reduce pain. When we talk about pain killers, we are usually referring to a group of drugs called analgesics. Due to uncontrolled use of OTC drugs (pain killers), signs and symptoms of underlying diseases are suppressed hence incidence of delayed diagnosis, complications, treatment failure and drug resistance are increasing³⁻⁶.

Education and professional status has been mentioned as predictive factor for use of OTC drugs⁷. In several studies it has been shown that resistance of pathogens, adverse drug reactions and drug dependence increase to a very high level

due to this inappropriate use of drugs without expert opinion⁸⁻¹⁰. These are major causes of concern worldwide particularly in developing countries where analgesics are often available without a prescription.

Aim

To evaluate the knowledge of over the counter usage of analgesic drugs among diabetic industrial workers in Madurai.

Study Design and Study Centre

A cross-sectional descriptive questionnaire based study conducted with diabetic patients in textile industry, Madurai- involving 100 workers, this was started after obtaining prior permission from industrial authorities.

Study Group:

Inclusion Criteria:

Diabetic patients of age 40 to 60 years of age were included in this study.

Exclusion Criteria:

No specific exclusion criteria

Study Period: AUGUST'2016.

2. Methodology

A complete enumeration of all the 100 workers as study subjects during the study duration was done. A pre-tested semi-structured questionnaire was designed and all the

subjects were explained regarding the study purpose and the instructions for completing the questionnaire. They were ensured that their identity will not be disclosed.

Questionnaire

The questionnaire was framed in English language after getting validation by our professors and they were explained in mother tongue. The questionnaire contain fifteen questions were related to knowledge of over the counter usage of analgesics.

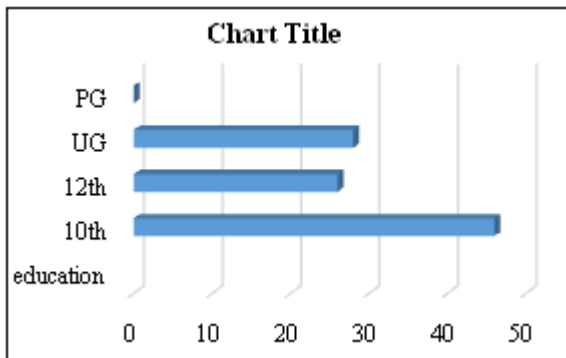
3. Results:

Gender



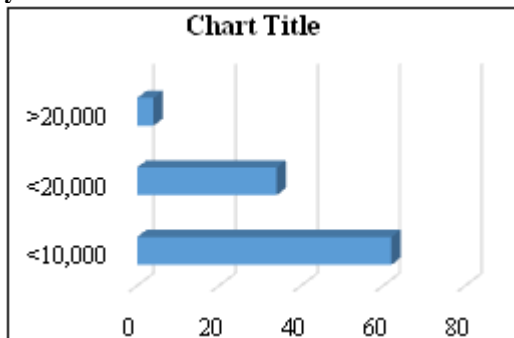
male	female
70	30

Education

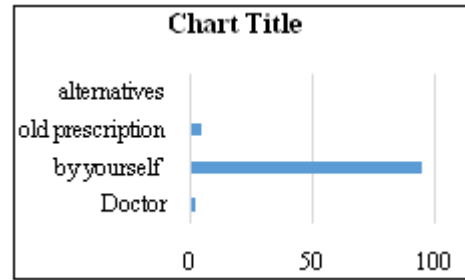


education	
10th	46
12th	26
UG	28
PG	0

Family Income



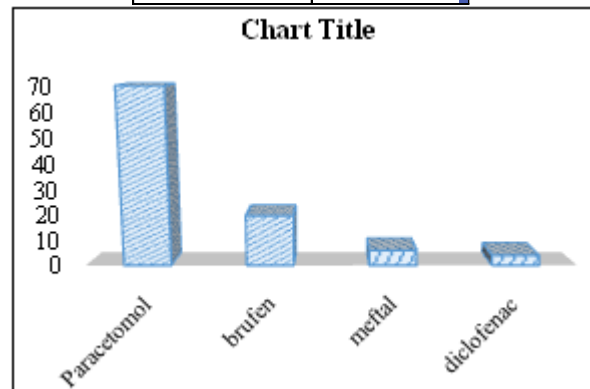
How will you approach to relieve your pain?



Doctor	2
by yourself	94
old prescrip	4
alternatives	0

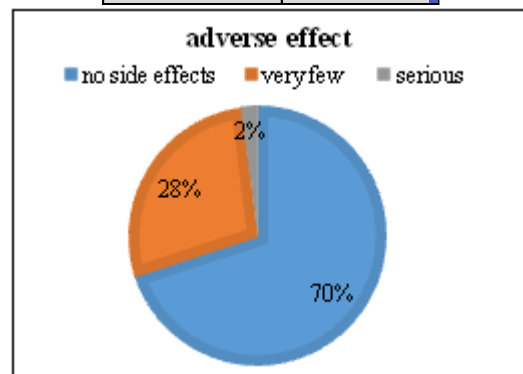
Which OTC Drug You Prefer To Treat Pain?

Paracetamol	70
brufen	20
mefal	6
diclofenac	4



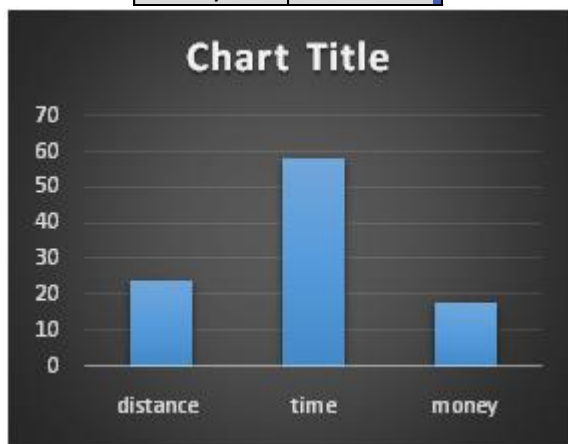
Did You Experience Any Adverse Effect Of OTC Drugs?

no side effect	70
very few	28
serious	2



WHY do you prefer OTC Instead of going to Hospital?

distance	24
time	58
money	18



4. Discussion

The study was conducted among 100 diabetic industrial workers. Most of them were males(70%), while 30% were females. 76% of workers suffered from pain once a month and 10% of workers almost never experienced pain. The head and joint were the most common sites of pain ,30% and 13% respectively¹¹.when I discussed about pain management, 92% of workers reported that they had been purchasing medicine from the pharmacy on their own and only 4% stated that they visited a physician and bought the prescribed medicine.

Regarding the active ingredient in the pain medication, workers preferred medicines containing paracetamol were 70%, followed by brufen(20%) and meftal(6%). Paracetamol is widely used as a pain killer for mild to moderate pain (head ache, muscular pain,etc). It will also reduce fever. Its available in 500 mg tablets and its taken upto four times a day. It is well tolerated and has few side effects. At doses higher than 4000 mg per day, it can seriously damage the liver. Pain killers should not be used for long term, if so person may experience serious side effects. 70% of workers reported that they had no adverse effects and 28% had very few side effects (GI upset) and only 2% experienced serious side effects (gastritis, hematemesis, intractable vomiting, jaundice). Workers reported that they mainly followed pharmacist’s advice, hence there was deficient information about interactions of pain killers with other drugs while purchasing OTC pain killers. 94% workers relied on pharmacist’s recommendation, 4% bought on the advice of doctor and 2% followed their old prescription. Because of tight schedule of workers 58% of workers reported that they preferred OTC mainly because of time, distance(24%) and money (18%).

5. Conclusion

This descriptive survey shows that the majority of Industrial workers had a poor knowledge about adverse effects of

OTC pain killers and the knowledge of risks was not adequate. For example paracetamol is mostly used by the industrial workers on survey. Due to the usage of minimal dose of paracetamol and frequency of pain once a month (76%) they didn’t experience any serious side effects. If they used in high doses they may get liver damage. Thus, to avoid or minimize the dangers of OTC pain killers, firstly the workers should be educated about the dangers of indiscriminate use of drugs. Secondly, the pharmacist must be insisted on drugs being supplied by themonly on a valid prescription. Thirdly, a proper statutory drug control must be implemented, rationally restricting the availability of drugs to the public. These three measures would definitely reduce the incidence of drug-related mishaps and help in maintaining good health of the individual and society.

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ANALGESIC USAGE OF OTC AMONG INDUSTRIAL WORKERS IN AND AROUND MADURAI							
1	GENDER	MALE		FEMALE			
2	AGE	20-30		30-40		40-50	
3	EDUCATION	10TH		12TH		UG	PG
4	FAMILY INCOME	< 10,000		<20,000		>20,000	
5	ARE YOU SUFFERING FROM ANY PAIN						
	NEVER		ONCE A MONTH		ONCE A WEEK		EVERY DAY
6	FOR WHAT PAIN YOU EVER WORRY?						
	HEAD		TEETH		JOINT		OTHERS
7	HOW WILL YOU APPROCH TO RELIEVE YOUR PAIN?						
	ASK YOUR DOCTOR TO PRESCRIBE		BUY YOURSELF AN OTC DRUG		OLD PRESCRIPTION		ALTERNATIVES (AYURVEDA, SIDDHA)
8	OTC MEDICATION FOR PAIN CAN BE BOUGHT FROM A MEDICAL STORE ON THE ADVICE OF?						
	DOCTOR		PHARMACIST		OLD PRESCRIPTION		KNOWN BY TELEVISION
9	IF YOU BUY AN OTC DRUGFOR PAIN, YOU GET ADVICE ABOUT ITS USE FROM?						
	DOCTOR		PHARMACIST		FROM THE LEAFLET		FRIENDS
10	WHICH OTC DRUG YOU PREFER TO TREAT PAIN?						
	PARACETAMOL		BRUFEN		MEFTAL		DICLOFENAC OTHERS (SPECIFY THE NAME)
11	IF YOU PURCHASE AN OTC FOR PAIN, YOUR PHARMACIST ASK YOU WHAT OTHERDRUG YOU ARE TAKING						
	ALWAYS		SOMETIMES		NEVER		
12	IF YOU PURCHASE A PAIN KILLER WHAT ADVICE WILL BE GIVEN BY PHARMACIST?						
	DOSES PER DAY		BEFORE/ AFTER FOOD		ANY ADVERSE EFFECT RELATED TO DRUG		
13	DID YOU EXPERIENCE ANY ADVERSE EFFECT HB OTC DRUGS?						
	NO SIDE EFFECTS		HAVE VERY FEW SIDE EFFECTS		HAVE SERIOUS SIDE EFFECTS (Jaundice, Hematemesis)		
14	AWARENESS OF SIDE EFFECTS DUE TO PAIN KILLER COME TO KNOW ABOUT IT THROUGH						
	FROM DOCTOR		FROM PHARMACIST		THROUGH TELEVISION		THROUGH INTERNET
15	WHY DO YOU PREFER OTC INSTEAD OF GOING TO HOSPITAL?						
	DISTANCE		TIME		MONEY		