

Knowledge of Housewives Regarding Non Steroid Anti Inflammatory Drug Use on Joint Pain in Hegarmanah Village Jatinangor

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Abstract

Background: Joint pain is frequently found in daily life activities. The prevalence of joint pain increases within the age. One of the medicine used for joint pain is non-steroidal anti-inflammatory drug (NSAID). In connection with inappropriate usage and their side effects, this study aimed to seek the extent of housewives' knowledge on the use of NSAID for joint pain in Hegarmanah village, Jatinangor subdistrict.

Methods: This cross-sectional descriptive study was conducted in October 2013 to the housewives resided in Hegarmanah village, Jatinangor subdistrict, West Java. Questionnaire sheet was distributed to each of 110 housewives that had been stratifiedly with randomized sample. The questionnaire contained identity, age, education level, and knowledge of NSAID in related to joint pain.

Results: Based on the data collected, 73 subjects had adequate level of the knowledge and 37 subjects were in a poor level of the knowledge. The proportion of respondents who knew that joint pain was the pain occurs in the joint was 99.1%, the proportion of respondents who knew that the pain relieving drugs are called NSAID group was 40.9%, the proportion of respondents who knew that NSAID had a side-effect was 73.6%, and the proportion of respondents who knew that the side-effect of NSAID is abdominal pain was 61.8%.

Conclusions: Most of the housewives in Hegarmanah Subdistrict have adequate knowledge in the use of NSAID for joint pain relief. [AMJ.2016;3(1):115-9]

Keywords: Housewife, joint pain, knowledge, NSAID

Introduction

Pain is a sensation of inconvenience and emotional experience with substantial or potential tissue damage or reflected by the damage.¹ Based on the localization, pain can be divided into head pain, joint pain, back pain, and neck pain.¹ Joint pain is a type of pain with the highest prevalence as much as 28% and most frequently occurs in women.²

One of medicines that frequently used for treating joint pain is non-steroidal anti-inflammatory drug (NSAID).³ Ibuprofen is one of over-the-counter (OTC) drug that is often use in worldwide.³ The NSAID are mostly used by women, both for one week and long-term use (more than 6 months).⁴ In Indonesia, many NSAIDs have been distributed to the market with a variety of trademarks. In Indonesia, NSAID which mostly used are

ibuprofen, aspirin, diclofenac, mephenamic acid, naproxen, piroxicam, meloxicam, and celecoxib.¹ Long-term utilization of NSAID is very hazardous due to the various side-effects of NSAID, especially to gastrointestinal system.^{5,6} Therefore, people need to pay attention to the use of NSAID, including to not too often administering of NSAID in order to avoid the possibility of hazardous side-effects. This study was conducted to seek the extent housewives' knowledge on the use of NSAID for joint pain in Hegarmanah village, Jatinangor subdistrict.

Methods

This cross-sectional descriptive study was conducted in October 2013 to the housewives resided in Hegarmanah village, Jatinangor subdistrict, West Java. This study was approved

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Table 1 Characteristic of the Respondents

Respondents	Frequency (N=110)	Percentage
The housewife' age (years old)		
20-29	17	15.5
30-39	35	31.8
40-49	29	26.4
50-59	19	17.3
≥60	10	9.1
Education level		
Elementary school	30	27.3
Junior high school	31	28.3
Senior High School	42	38.3
Bachelor/Master	7	4.2

by Health Research Ethics Committee Faculty of Medicine Universitas Padjadjaran. The sampling was taken by stratified random method on 110 subjects of the population meanwhile, the calculation sample size used was a descriptive categorical formula.⁷

One hundred and ten housewives were asked to fill in the validated questionnaire sheet. There were 12 questionnaires. The questionnaire contained identity, age, education level, and knowledge of NSAID in related to joint pain.

The knowledge levels are divided into adequate and poor based on the median of total score of knowledge by 10. The level is poor if the median of total scored true is less than 10. The level is adequate if the median of total scored true is more than 10.

Results

From 110 respondents, most of respondents

Table 2 The Total Score of Housewives' Knowledge on NSAID Usage for Joint Pain.

Question	True n(%)	False n(%)
Joint pain is the pain on motion joint	109(99.1)	1(0.9)
Joint pain can affect the knee	106(96.4)	4(3.6)
Respondents knows the part of the body that frequently affected	100(90.9)	10(9.1)
When suffering the joint pain, the respondents seeks for help from the health center.	97(88.2)	13(11.8)
The joint pain medicine used to relief the pain in joint	109(99.1)	1(0.9)
The respondents knows the examples of NSAID medicines	45(40.9)	65(59.1)
The joint pain drugs must not be applied for long-term period (> 6 months)	59(53.6)	51(46.4)
Joint pain relief can be purchased in OTC (without prescription)	83(75.5)	27(24.5)
The joint pain drugs have side-effect	81(73.6)	29(26.3)
One of the joint pain drug side-effects is abdominal pain	68(61.8)	42(38.2)
The people who suffers joint pain only gets one drug type	97(88.2)	13(11.8)
Joint pain relief can be bought at a dispensary (apotik)	108(98.2%)	2(1.8%)

Table 3 The List of Joint Pain Medicines Used by Housewives

Medicine	(n=110)	(%)
NSAID		
Ibuprofen and paracetamol	35	31.8
Acetylsalicylic acid	2	1.8
Piroxicam	5	4.5
Ibuprofen	2	1.8
Diclofenac	1	0.9
Non-NSAID drugs	38	34.5
Ignorance	27	24.5

were 30–39 years old (31.8%), and the education level was Senior High School (38.3%).

Almost all housewives in Hegarmanah village knows the joint pain based on the definition (99.1%), part of body suffers joint pain (90.9%), visiting doctor when suffers joint pain (88.2%) and the indication of joint pain medicine (99.1%).

The proportion of respondents who knew that the pain relieving drugs are called NSAID group was 40.9%, the proportion of respondents who knew that NSAID had a side-effect was 73.6%, and the proportion of respondents who knew that the side-effect of NSAID is abdominal pain was 61.8%.

The NSAID which mostly used for joint pain was combination of ibuprofen and paracetamol (31.8%), while 34.5% used Non-NSAID drugs. Based on the data collected, 73 subjects had adequate level of the knowledge and 37 subjects were in a poor level of the knowledge.

Discussion

Almost all housewives in Hegarmanah village knows the joint pain based on the definition (99.1%), part of body suffers joint pain (90.9%), visiting doctor when suffers joint pain (88.2%) and the indication of joint pain medicine (99.1%).

The housewives still found difficulties in

mentioning the name of joint pain medicines of NSAID group; only 45 (40.9%) subjects were able to mention NSAID joint pain names properly. The combination of ibuprofen and paracetamol were mostly mentioned by 31.5% of the housewives. The present study results are similar to that by Wilcox et al.³ and Lanas et al.⁶ it is suggested that ibuprofen is NSAID which frequently used. However, there are still greater number (69.1%) of subjects who did not recognize the names of NSAID joint pain relief. Greater number of subjects who did not recognize the names of NSAID joint pain relief indicates a necessary education on NSAID medicine types for joint pain. The prevalence of joint pain increases within the age.¹ Age related to the disease affecting joint for example osteoarthritis which cause joint pain. This may cause an increasing in the use of NSAID on older housewives.¹

About 59 housewives considered that NSAID medicines are not allowed to administer in long-term, for instance more than 6 months. Using NSAID in long-term may rise harmful side-effects, such as gastric ulceration and hemorrhage.^{3,8} The risk for a serious gastrointestinal complication is worse with the increasing of age on the subject.^{4,6} Therefore, it is recommended to not use NSAID for a long-term period.

Eighty-three housewives considered that joint pain medicines can be purchased without prescription. The joint pain medicines,

Table 4 Housewives' Knowledge on NSAID Usage for Joint Pain

Level of knowledge	Frequency (N)	Percentage (%)
Adequate	73	66.4
Poor	37	33.6
Total	110	100

such as ibuprofen that is frequently used by housewives in Hegarmanah village, is classified into OTC drugs that are permitted to buy without a doctor prescription.³

Almost all (73.6%) housewives know that NSAID joint pain medicines have side-effects. One of the side-effects is gastric pain (61.8%). Non steroid anti inflammation inhibits cyclooxygenase (COX)-1 and COX-2 in reducing prostaglandin level.⁹ Inhibition in prostaglandin synthesis and direct cytotoxicity of NSAID provokes gastric acid secretion causing gastric irritation.¹⁰ Chronic bleeding may result in anemia.¹¹ This gastric irritation may cause bleeding, perforation, and pain of stomach,^{3,12,13} whereas the new, selective COX-2 has the lower probability to irritate the stomach.³ The risk of gastric irritation depending on the presence of three main risk factors. The three main risk factors are prior history of peptic ulcer, age and concomitant NSAID usage.¹⁴ This result is higher compared to the study by Braund et al.¹⁵ describing that 70% of the subject were able to mention the NSAID side-effects.

Most housewives (88.2%) also know that the administering joint pain is one of the best type for relieving a joint pain. The combination of two types or more NSAID can enhance the occurrence of their side-effects in gastrointestinal tract. One hundred and eight housewives also prefer to choose buying the NSAID medicine at a dispensary. By purchasing the drugs in dispensary, the housewives expect the explanatory information about taking the medicine and to avoid the expiry date of the medicines.

The whole results of this questionnaire study indicates that most (66.4%) of the housewives have adequate knowledge. It is caused by high level of housewife education, such as, senior high school, an easy access to primary health care, and they also frequently got an education about health.

In this study, there was a difficulty in communicative language. The language applied in the questionnaire is Indonesian, whereas the daily language of the related respondents is Sundanese; therefore some respondents could not understand some of the sentences in the questionnaire. As the consequence, it took a lot of time to explain the intention of the related questions for the respondents.

In conclusion, the knowledge on NSAID use for joint pain of housewives in Hegarmanah village, Jatinangor subdistrict, mostly have adequate knowledge. Though, most of the respondents have adequate knowledge, the

knowledge of the NSAID names is still poor. For that reason, it is recommended to educate people about the use and the side effect of NSAID. This study is conducted descriptively, consequently there is no analysis of association is done between the knowledge and the education level.

It is recommended to Public Health Center of Hegarmanah to apply a health education on drug utilization with a greater caution to the community. The related physicians, expectedly can carry out the education programme of NSAID, especially the types and their side-effects as expected by related communities. The researcher do not only explore the science but also behavior and attitude.

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