

INTERPRETASI EFIKASI OBAT DALAM PENGOBATAN ANAK DENGAN INFEKSI SALURAN PERNAFASAN ATAS DI DEPOK, INDONESIA

INTERPRETATION OF MEDICINE EFFICACY FOR TREATING CHILDREN WITH ACUTE RESPIRATORY INFECTION IN DEPOK, INDONESIA

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Diterima: 28 Januari; Disetujui: 28 Februari 2013

ABSTRACT

ARI (Acute Respiratory Infection) is one of the main diseases on children. Generally, treat seeking for ARI always ends in drug usage. The medical efficacy does not only belong to medical views, but also on cultural construction. The aim of this study was to collect data on how medicines interpreted by **lay** people in urban slum area. This research was conducted in October 2009 within a community who lived in a slum area of Depok municipality. Data were collected by doing in depth interview with 20 mothers with children under five years old with last episode of ARI symptoms in the previous months before interview. The informants were asked about their experience in handling children with ARI symptoms, medicines and how they evaluate those medicines. Result showed that to deal with ARI, mothes perform self medication, taking the children to primary health care or to private practices which all resulted in medicine usage. The term “cocok”(compatible-red.) is a key term to evaluate medicines efficacy and compatibility.

Keywords: drugs efficacy, accute respiratory infection, compatible

ABSTRAK

ISPA (Infeksi Saluran Pernafasan Akut) adalah (Acute Respiratory Infection) salah satu penyakit utama pada anak. Pada umumnya perilaku pencarian pengobatan untuk ISPA berakhir dengan penggunaan obat. Efikasi obat tidak hanya merupakan pengetahuan medis tetapi merupakan konstruksi budaya. Penelitian dilakukan untuk memahami bagaimana obat diinterpretasikan oleh orang awam di wilayah kumuh perkotaan. Penelitian dilakukan pada bulan Oktober 2009 di sebuah komunitas pemulung yang tinggal di kota Depok. Data dikumpulkan dengan melakukan wawancara mendalam terhadap 20 orang ibu yang memiliki balita dengan gejala ISPA dalam waktu paling lama sebulan sebelum penelitian dilakukan. Informan diwawancarai mengenai pengalaman dalam menangani balita dengan gejala ISPA, pengobatan yang dilakukan dan bagaimana mereka mengevaluasi obat yang digunakan. Hasil menunjukkan bahwa dalam menghadapi balita ISPA, para ibu melakukan pengobatan sendiri, membawa anak ke Puskesmas atau praktek swasta yang semuanya berujung pada penggunaan obat. Istilah “cocok” merupakan kata kunci dalam mengevaluasi efikasi dan kompatibilitas obat.

Kata kunci : efikasi obat, infeksi saluran pernafasan akut, cocok

BACKGROUND AND SIGNIFICANCE OF THE PROBLEM

Infectious diseases such as diarrhea, pneumonia, and measles account for more 37% of the 161,000 deaths that occurred among under-fives in Indonesia in 2005.

Among the 61,000 neonatal deaths that are estimated to have occurred in 2004–2005, about 22% were due to infections (severe infections including pneumonia, neonatal tetanus, and diarrhea).(1)

Table 1. : ARI Prevalence in Indonesia among Different Years*

Measure	1997	2002-2003	2007
Prevalence of children with ARI (in 2 weeks prior to the survey)	9%	8%	11%
Age with highest prevalence of ARI	6-11 (36.9%)	6-23 (9%)	24-35 (14 %)
Prevalence in urban area	7.7 %	7.6%	10.3%
in rural area	9.4 %	7.6%	11.9%

* data from (2-4)

Based on national survey data in 2005 ARI has the highest percentage of ambulatory care in hospital as high as 7.05% (1,117,119 cases), and according to survey from Ministry of health it was 15.1% and become the highest rank in ambulatory care and the fourth highest for in patient care at hospitals. (5).

In Riskesdas (Basic Health Research) the prevalence of ARI were collected by asking informants about ARI diagnosed by health provider or diagnosed by symptoms within one months prior to the survey. National ARI prevalence based on Riskesdas 2007 was 25.50%. The highest prevalence is in children under five years old (more than 35%). National prevalence of pneumonia was 2.13%.(6)

ARI prevalence in West Java province was 6.95% (diagnosed by health provider) and 24.73% (diagnosed by symptoms). In Depok municipality those based on diagnosis was 7.2% and based on symptoms was 20.6%.(7)

There are several choices of treatment in dealing with ARI. It could be non medication treatment, self medication by using traditional medicines or modern medicines, and using prescribed medicines from health provider. Medicines is dominated and being used for self medication as well as being prescribed by health provider almost in every visit.

The researches have been done mainly focus on quantitative research and dominated by medical, public health and epidemiological perspectives. As the researches are mostly quantitative, the social factors wasn't really explored thus some of them proposed the need to do research which is more anthropological and explored the

behavior from the cultural reasons underlying the phenomena.(8-9)

Peer educators (trained health cadres) in Cianjur district, Indonesia prefer to suggest mothers to go to primary health cares or hospitals either in mild or severe ARI in children under five years old. The medicines suggested for used are antipyretic, cough preparation and antibiotic. The most common medicines suggested are: white cough medicines 22.02% (Obat Batuk Putih), Laserin 16.67% (a branded medicines, consist of herbal preparation), Paracetamol 13.10%, and cotrimoxsazol less than 5%. (10) In Indramayu Around 73.5% mothers did self medication for their common cold children and 72.8% of them use medicines from medicine shops. (9)

Anthropology has played roles in order to understand how medicines are interpreted and used from sociocultural aspect. Although medicines might be interpreted as physical object but in fact in many cultural setting medicines are interpreted as cultural artifact. The meaning of medicines is modified based on their cultural lens and medicines are culturally interpreted to ascribe a new meaning. Cultural reinterpretation is one tool to understand medicine use.

Cultural reinterpretation means that people apply traditional criteria for therapy choice and traditional concepts of efficacy to modern pharmaceuticals. There is multitude of factors lie behind the phenomenon of cultural reinterpretation. The efficacy of medicine is not only belonged to medical views, but it is a cultural construction of biological and social dimensions which goes beyond physical and mental well being. It has cultural efficacy in its meaning, social meaning as ideology's vehicles, fashion and

globalization, psychological effect for confidence and satisfaction and even in metaphysical affect as miracles which confirm the rightness “religion” of natural science. As an example is cause-symptoms-treatment belief such as hot-cold belief in which hot remedy is suitable for an illness caused by cold and the opposite (11-13)

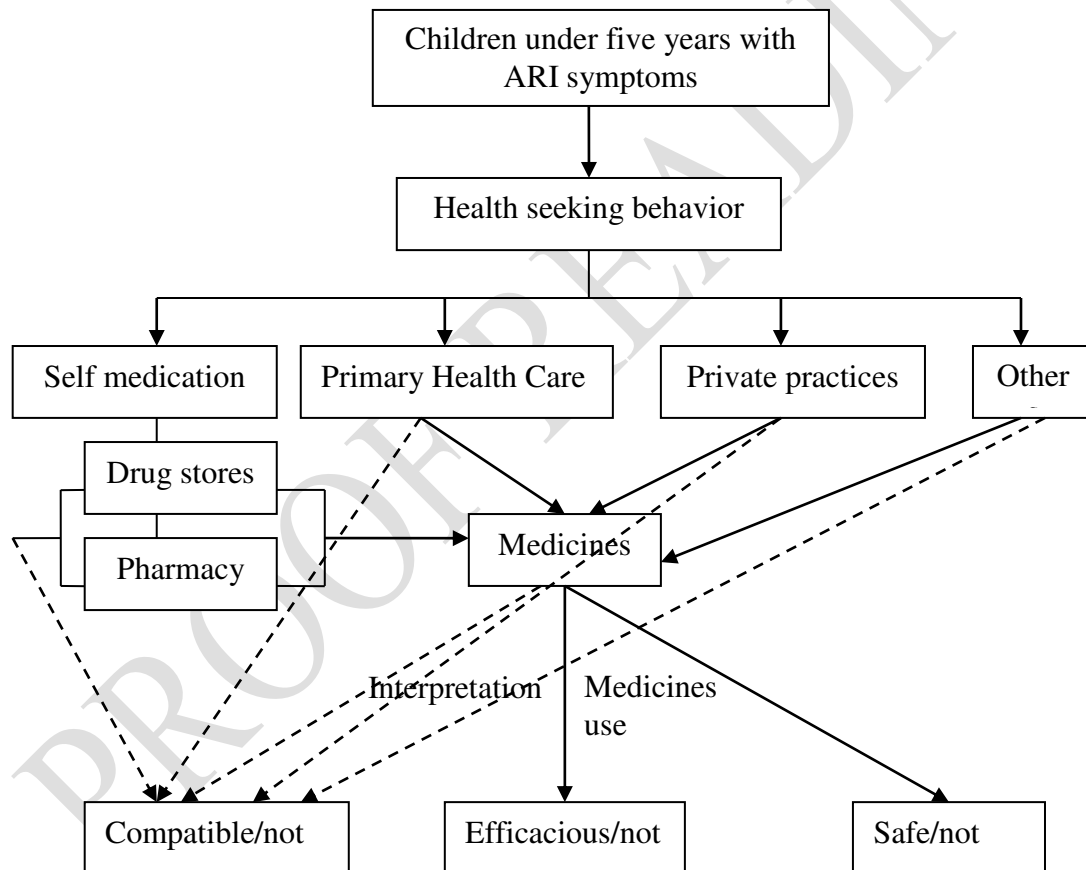
Efficacy is determined by suitability for particular person. In Philippines is known as the concept of “hiyang” while in Indonesia is known as “cocok”. Criteria for choosing medicines in lay people community in

Philippines are : indications or symptoms, dosage form, age of patients, severity, special efficacy, medicines category, herbal preparation, generic or branded, experiences, available in the store etc.

The research aims to understand the treatment and medicines use behavior for ARI in children under five years old among the family/household in urban slum area and how the cultural beliefs influence their medicine use behavior in interpretation of medicine efficacy and safety

RESEARCH METHODOLOGY

Framework of the Study



The research is a pharmaceutical anthropology research started with the illness and how people overcome it, and it may involve all kinds of health seeking behavior in relation with health care system including non pharmaceutical self care practices. (15)

Data collected by interviewing the parents who were recruited purposively based on inclusion criteria. The interviewees

were 20 informants from 20 households. All of the main informants are mothers. For some informants, recruitment process started by screening based on inclusion criteria simultaneously with making appointment to be informants in the next day or anytime that she has time while for the others the recruitment process conducted directly when I came to their house. All of informants were

interviewed in the community area mainly in their houses.

In depth interview conducted as the main method to collect data about: health seeking behavior for the last episode of ARI and their cultural reinterpretation of medicines, the way they interpret the efficacy, compatibility and safety of medicines that they used.

The informants had fulfilled the inclusion criteria, they are parents or mothers who have children under five years old regardless age and socioeconomic status, the children have to have ARI episode within 1 month prior to the survey, and they were willing to participate in this study. Meanwhile the exclusion criteria were parents who refuse to be interviewed and parents who are unable to participate because of health problems

All the interview and discussion were conducted in Indonesian language. Field note was made in Indonesian. Field note from in depth interviews which were in Indonesian or English were all be transcribed

to English. All data were analyzed manually. Data were coded to classify health seeking behavior and classifying medicine use behavior in medicine use concept (cultural reinterpretation) and then the contents were analyzed. (15-16)

The ethical approval is obtained from Mahidol University Ethical Committee. The permission from local government also needed from National Unity and Community Protection District office, Sukmajaya sub district were also gained. Informal permission also obtained from Abadijaya village, RW (sub village) headman and RT (sub sub village) headman.

RESULT AND DISCUSSION

Research was conducted in a slum area in Abadijaya village of Depok municipality. Among 20 households that became the sample for this research, most of them are represented by women; they are the wives and the mothers. The basic information of those informants is showed in the table below :

Table 1: Basic Information of Informants

Age (y)	<20	20-25	26-30	31-35	>35
Σ informants	1	4	5	7	3
Education*	Elementary School	6th grade	Junior school (not finish)	Junior school (finish)	
Σ informants	4	9	2	1	
Children	1	2	3-5	>5	
Σ informants	3	8	7	2	
Age CU5YR	<1 y	1-2 y	>2-3y	>3-5y	
Σ Occupation	6	8	4	2	
Occupation	Housewife	Garbage collector	Domestic work	Vendor	Other
Σ Husband Occupation	10	5	2	1	2
Occupation	Food vendor	Garb. Collector	Driver	Widow	Others
Σ Income	5	9	2	1	3
Income	Daily	Weekly	10 days- 2 weeks	monthly	uncertain
Σ	8	1	5	1	5

* missing data (4 informants), CU5YR : children under five years old

The source of medicines inside the community is a neighbor store which mainly sells daily needs, however only limited OTC

(over the counter) medicines available. The shop becomes one main place to get medicines for sudden need in the community.

Outside the community, there is a market as a main place to buy daily needs, medicines for self medication, and also the place where garbage collectors can earn their life. There are about 5 drug stores in this market and a pharmacy. Among these 6 places there are 3 places that often mentioned by the community for buying medicines. There are at least two Primary Health Cares (PHCs) that can be reached by the community; they are the PHC in Mekarjaya village known as The Sukmajaya PHC and Abadijaya PHC. Other health services that are further but still possible to reach are: pharmacies, midwives practices, and private doctor/nurse practice.

Health seeking behavior

Self medication itself was chosen by almost 50% of the informants, not including

self medication combined with other health seeking behavior then followed by Primary Health Care. It showed that the popular health sector, especially self medication is still become the main choice in this community as in many places else. This result is in accordance with the other researches conducted that proved the popularity of popular sector as the main choice for health seeking behavior.

The medicines that have been used for self medication in the last episode of ARI as reported by the informants are listed in table 2 below. OBH kids (*Obat Batuk Hitam* or Black Cough Medicines) were reported by 3 informants, followed by Termorex Plus. Looking at the prices of medicines it can be seen that the most expensive medicines cost 10,000 IDR.

Table 2: Medicines being used in self medication, sources and prices

Group Brand name	Frequency	Source	Price (rupiahs)
Cough and cold with fever			
OBH for kids	3	drug stores	8,000-8,500 per bottle
Termorex plus	2	Pharmacy	10,000 per bottle
Baby cough	2	drug store	4,000 per bottle
Bodrex flu syrup	1	Pharmacy	7,000 per bottle
Cough and cold			
Laserin madu	2	Pharmacy	Small 4,500 big: 8,500-10,000 per bottle
Laserin	1	drug store	Small 2,500 per bottle
Komix	1	Shop	500 per sachet
Analgesic antipyretic			
Bodrexin	3	Shop	500 per tablet
Sanmol syrup	2	drug store	
Termorex	1	Pharmacy	10,000 per bottle
Other			
Vermint	1	drug store	1000 per capsule

For those who went for other health services especially to PHC and private practice (midwife and doctor) also reported that they only got the medicines without further knowledge about the medicines. Some of the medicines were still available during the interview while some others were not available. Powdered medicines were found as the main thing they got from the doctor/midwife and also syrup (any medicine in a bottle was considered as syrup by the informants).

The informants then reported how they can evaluate the efficacy, compatibility and safety of medicines that they use in their own interpretation. The medicinal efficacy does not only belong to medical views, but also a cultural construction. Cultural reinterpretation means that people apply traditional criteria for therapy choice and traditional concepts of efficacy to modern pharmaceuticals.

In Indonesia the key term to evaluate the efficacy or suitability of medicines is "cocok" means suitable. This term has been

used to evaluate whether a medicine is considered as good or efficacious and to say whether it is work or not for someone. In Phillipines the key term is “hiyang” and in Sri Lanka a similar concept known as “*behet ahanava*” or medicine answering.(17)

Evaluating Medicines’ Efficacy

To evaluate the efficacy of medicines, lay people usually count on one or more signs : symptoms reducing or health improvement such as the reduction of fever, cough, cold and runny nose; restoring children’s normal activity such as running, laughing, playing and improve eating appetites; the specific symptom such as sweating; medicine price; and the form and taste of medicines. More expensive the medicines means more powerful. The modern medicines which are produced in “clean laboratories” get more trust in relation with the efficacy.(14)

Size can influence the efficacy, the larger the size of medicine, the more power it has. Medicine form also important, injection is considered as the most powerful dosage form, capsules is preferred for wounds. The color can be the important signifiers of certain kinds of physiological effects. Taste also related with efficacy for example bitter medicines is for cough and fever. The quantities being used also depend on interpretation; sometimes people use medicines different with the dose prescribed or not continue the medicines until complete treatment, in other hand when they feel very ill they use medicines much more to get the fast relieving effect.(12) (14)

Symptoms Reducing or Health Improvement

The signs of symptoms reducing reported by informants are: the elimination or the lessening of fever, cough, runny nose and sputum and also health improvement such as get well directly or cured right away.

That is, last night he was hot then I gave him Bodrexin, he get cured right away. The cough getting better, if [he] gets cough sounded ‘krok-krok’ until vomiting, and [by taking the medicine] not anymore (IR3)

If hot, it decrease directly, that’s mean suitable. (IA10)

Restoring Children’s Normal Activity

The restoring children’s activities such as running, playing, laughing, good appetite are reported as a result of efficacious medicine.

Yes, OBH kids is the most suitable, can be seen that the child looks healthy, get playing directly, run away, and laughing. (IT2)

Specific Symptoms

Sweating is a common sign recognized by informants to say that the medicine works.

Yes, after taking the medicines then he sweat right away. (IR3)

The Price of Medicines

The price of medicines sometimes considered as related with its efficacy.

Heeh. I ask I want to buy medicines but a good one. There is medicines cost 3 thousands, 4 thousands but I ask for something more expensive, a little more. This one I bought 10 thousands. Alhamdulillah this is suitable. The good one means the one with higher price. The common one cost only 3500, 4000. The one cost 10 thousands up lah, which is good already in the drug store. (IW12)

The Form and Taste of Medicines

Some informants preferred syrup while the other preferred powdered medicines. They associate the powdered medicines as bitter but more efficacious. Syrup (any medicines in a bottle) is considered better in its taste and some informants always expected to get syrup from health provider.

In my opinion, the surely suitable medicines...people tell powdered medicines. But I feel pity on him as it is too bitter. It’s told, the midwife told that don’t always ask

for syrup, it's better and suitable to have bitter medicines, get cured faster...(IS8)

In contrast some informants said that the medicines weren't suitable mainly by saying that the symptoms still exist without changing.

By using the medicine from PHC, the fever was not reduced, still the same condition. So we became panic right, and added with non stop cough. 3-4 days later we went to family doctor. (ID5)

After a week, then diarrhea stopped...it seemed that the medicine wasn't suitable. After taking the medicines, I gave her breast milk, then she sweat a lot and her body become cooler, in day time but she became hot again in night time. And she still hot the next day. It wasn't become cool directly. Just keep changing hot and cold. (IA16)

Evaluation of Suitability/Compatibility

In relation with someone's body, the medicines can be considered as suitable/compatible or not for someone. Lay people, the informants stated the differences of suitability of medicines mainly not by evaluating the active component or the composition; it is too complicated for them. And in case they get medicines from health provider, they don't even know what the medicines are, they only know the form and sometimes they can find out the label sometimes else just blank because the medicines are only powdered medicines. Therefore lay people use a very simple way to evaluate the suitability/compatibility by simply comparing the brand name of medicines, comparing different source of medicines and comparing different person for the same source of medicines. This cultural reinterpretation is mainly based on previous experiences, so they can perceive directly whether a medicine is suitable or not, without have to know whether the medicines are the same or not, or whether the indication are the same or not.

Comparing different brand name

Based on their experience using different medicines with different brand

name they can judge whether or not a branded medicines suitable for their children but not for others, and whether a medicines suitable for a child but not suitable for their other child.

I feel suitable by trying it first. I've ever tried Formula syrup, Herba syrup but this one "Termorex Plus" is suitable. I have tried Contexyn syrup but it wasn't suitable even after 4 days taking the medicines until finished. (IM19)

Comparing the source of medicines for the same person

Some informants compared different health provider or different source of medicines for their child. Different health services such as PHC compared with private practice resulted in different suitability. It is also applied to different PHCs or different drug stores.

No, there in Kerinci the medicine is not suitable. Ya, the medicines are different from PHC in Majapahit. We often went there previously, but not suitable, it is suitable to go to Majapahit. (IW11)

Comparing different person for the same source

Another way to evaluate compatibility is by comparing different person with the same provider or same source of medicines. When they try one kind of health seeking behavior usually it's based on their experience of going to certain health provider. If they interpret that health provider is suitable for them then they will try for their children, but when they met the condition that their children didn't getting better they will interpret the health provider is suitable for them but not for their children, the same pattern is applied for different children within one family.

My youngest son is suitable with medicines from PHC, but my eldest son is not suitable with the PHC, the medicines from PHC were not working, so he's only suitable with the family doctor practice over there. (IL4)

Evaluation Medicines Safety

Some informants not sure about the safety of medicines, some informants just said they don't know whether a medicines is safe or not but they just believe that it is safe. Not many information about their perception regarding medicine safety and how to evaluate it. Two informants mentioned about potent medicines and high dose which might be related with their perceptions of safety.

The medicine for convulsion from PHC only ¼ tablet every time, maybe because it is "potent" medicine. (ID5)

Other informants connected safety with traditional medicines, the source of medicines (if from health provider must be safe), and also from expiration date. The informants seemed to have very limited ideas about safety.

I believe with traditional medicine, because sometimes it could make get well faster. (IT2)

Sometimes I check the date, whether it is expired or not. And I think Traditional medicine [is safer] because it's Javanese potion. (IL15)

CONCLUSION

The cultural reinterpretation of medicines is a simple way has been used by lay people to evaluate medicines efficacy, compatibility and safety. Lay people in Indonesia can interpret medicines efficacy and safety by simply judging based on their knowledge and experiences with the term "cocok" as the key term.

The informants can easily judge whether a medicines or drug stores or health provider suitable for their children or not by simplify the way they interpret its efficacy and compatibility. They don't need to trace back to the way they use it which might be inappropriate use, they also no need to look at the indication, ingredients or anything that too complicated. Based on experience on using certain medicines or medicines from certain source they can easily judge whether it is suitable for a child but not for other or this source is suitable but not the others. Their knowledge is limited, so the way they understand must be different. They only use

their own cultural lens as they have no other tools to use.

Their understanding about medicine safety was also very limited. They just believe that the medicines are safe because they come from the health provider. This is completely different from medical views that the medicines considered as safe based on the indication, dosage, side effects and so on.

RECOMMENDATIONS

Understanding cultural reinterpretation of medicines will help the health provider to deal with lay people and communicate appropriately in giving understanding about what should be done with medicines. Empowering the community to improve their knowledge about medicines can be done by using the member of the community who understand more about their life, they can be trained and become the informants for their own community.

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