Available online at http://www.journalijdr.com

ISSN: 2230-9926

International Journal of Development Research
Vol. 08, Issue, 03, pp.19306-19309, March, 2018

ORIGINAL RESEARCH ARTICLE OPEN ACCESS

PRACTICES OF SELF-MEDICATIONAMONG CAREGIVERS WITH CHILDREN UNDER FIVE YEARS IN WESTERN KENYA

***Paul Mathews Otieno, Milka Ogayo, Veronicah Knight, Fred Amimo, George Ayodo**

Department of Public and Community Health, School of Health Sciences, Jaramogi Oginga Odinga University of Science and Technology P.O. Box 210-40601, Bondo, Kenya

ARTICLE INFO

Article History:
Received 29th December, 2017
Received in revised form
22nd January, 2018
Accepted 19th February, 2018
Published online 30th March, 2018

Key Words:
Self-Medication
Caregivers of Children
5 Year Old
Health Care Providers.

ABSTRACT

Background: Self-medication is popularly practiced worldwide, especially on fever and some chronic conditions. However, deaths and adverse effects have been reported due to poor practices. In malaria endemic areas, caregivers with children under five years practice self-medication however, the practice is poorly understood.
Methods: A cross-sectional study was carried out on 201 caregivers with children under five years and 10 health care workers at Kabondo-Kasipul Sub-County Hospital in Homa-bay County, Kenya. The study determined the practices and promoters of self-medication on children under five years. The data were collected using key informant guide and semi-structured questionnaires.
Results: Majority of caregivers (98%) practice self-medication and most of them use pain killers (41%) followed by antimalarial and antibiotics at 4% each. About 52% of caregivers use a combination of two or more drugs and most of these drugs (52%) are from the local shop. The study shows that lack of a service or drug, dissatisfaction with services, more waiting hours and hostility of the care workers at the health facilities are potential promoters of self-medication among caregivers.
Conclusion: Self-medication is popular among the caregivers and combination of two or more drugs a common practice and the promoters of self-medication are practices at the health facilities. The study therefore recommends health education on self-medication to caregivers and also improvement of service delivery at the health facilities in order to reduce self-medication or prevent potential problems associated with self-medication with anti-malaria and antibiotics.

Citation: Paul Mathews Otieno, Milka Ogayo, Veronicah Knight, Fred Amimo, George Ayodo, 2018. "Practices of self-medicationamong caregivers with children under five years in western Kenya", *International Journal of Development Research*, 8, (03), 19306-19309.

INTRODUCTION

Self-medication is the use of drugs or home remedies to treat self-diagnosed disorders or symptoms. It is also defined as the intermittent and continued use of un-prescribed drugs for chronic or recurrent disease or symptoms(WHO, 2000). According to WHO, rational medicine use requires that "patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community" (Bourne *et al*., 2010).

Corresponding author: **Paul Mathews Otieno**
Department of Public and Community Health, School of Health Sciences, Jaramogi Oginga Odinga University of Science and Technology P.O. Box 210-40601, Bondo, Kenya.

However, self-medication remains a problem in Kenya, Africa and other parts of the world (Jain *et al*., 2011). It is estimated that more than 50% of all medicines are prescribed, dispensed or sold inappropriately and half of all patients are unable to take these medicines correctly (Bourne *et al*., 2010). Self-medication and non-doctor prescriptions are common in developing countries (Shankar *et al*., 2002). Studies have shown that modern medications are available in most households most of the time (Ocan *et al*., 2014).This is attributed to their fast relief of common ailments (Brass *et al*., 2011). These drugs are antibiotics and pain relievers and many people use them because of upper respiratory infections, common aches, pains and bouts of fever (Hussain *et al*.,2010). According to Ruebush *et al*. (1995) many residents of sub-Saharan Africa receive their initial treatment for febrile illnesses at home using herbal medicines, oral antipyretics, or

antimalarial drugs bought without prescription in local shops. Majority of the cases with febrile illnesses were self-diagnosed as malaria for which injection chloroquin was preferred since its desired effects were experienced faster than the other antimalarials drugs (Ruebush *et al*., 1995).The study of self-medication among the caregivers is important as this is the population that is mandated with the authority of taking care of children under five years especially in seeking treatment. Further, this is a malaria endemic zone where most of the antimalarial are sold in local shops which increases the likelihood of the practice of self-medication (Ruebush et al., 1995). The practice is largely because of the lack of access to health care facilities close enough to people. Other reports indicated that even when an ailment is suspected and drugs are used, patients rarely take an adequate course of treatment and many only visit a health facility after the illness has failed to respond to several days of self-treatment (Ruebush *et al*., 1995).Nevertheless, most residents begin treatment with herbal remedies or antipyretics.

Some of the known promoters of self-medication are ease of access; medicines are either prescribed by health professionals or obtained over-the-counter in the communities, this then means that many households would readily keep medicines for emergency use and treatment of chronic or acute illnesses (Ocan *et al*., 2014). Storage of drugs at home promotes sharing of drugs which further increases the risk of inappropriate drug use and hence emergence of drug resistance especially the antimicrobial resistance(Awad *et al*., 2005; Klemenc-Ketis and Kersnik, 2010). On the other hand, challenges in healthcare delivery such as inadequate access, shortage of health work force and frequent drug stock-outs which are common in developing countries, may influence communities to store drugs in homes (Ocan *et al*., 2014). Lack of knowledge among the community about safety of drugs they store at home is also a factor that promotes self –medication. Due to the increasing disease burden in developing countries and the desire for quick recovery from illness, home storage of drugs has become a common practice among the community (Ocan *et al*., 2014).

The Kenyan government has improved on the supply of health care services by constructing more health facilities and deploying trained health personnel (Geissler *et al*., 2000). Despite all these efforts, self-medication is still practiced (Hussain *et al*., 2010). This research therefore assessed the knowledge and practices of caregivers with children under 5 years on self-medication, in particular type of drugs, sources and combination of drugs given to the children. The study further established if lack of drugs at the public hospitals, distance to the health facility and hostility of the health care providers could promote self-medication among caregivers with children under five years.

METHODS

Study Area and Population

This study was conducted at Kabondo-Kasipul Sub-County Hospital in Homa-bay County, Kenya. The hospital is situated along Sondu - Kisii highway and has a catchment population of 29,038 with doctor patient ratio of1: 29,038 and nurse patient ratio 1:3,691. The most common ailments that patients present with include malaria, respiratory tract infections, intestinal worms, skin diseases and infections.

A total of 201 caregivers (aged 10-20 years to over 50 years) of children under five years were recruited to participate in this study and 10 health care workers, who had worked in the health facility for at least one year were also included. All the study participants provided informed consent while the ethical approval was obtained from Jaramogi Oginga Odinga Teaching and Referral Hospital Ethical Review Committee.

Study Design

The study employed a descriptive cross-sectional design and purposive sampling method. Both qualitative and quantitative approaches were used in the study and data collection tools were semi-structured questionnaires to caregivers and key informant interview schedule for the health workers. The semi-structured questionnaires were pretested on 20 study participants at a different hospital known as Othoro sub-County Hospital, Homa-bay County, Kenya.

Data management and analysis

The data was sorted, cleaned and analyzed using SPSS® software (version 12.0, IBM SPSS Inc., IL, USA). Descriptive statistics was used to summarize the data and the results presented in form of percentages, proportions, and frequencies on tables and graphs or charts.

RESULTS

Demographic Information

There were 75% and 25% females and males respectively. The majority (77.6%) were married, 14% single, 6.5% widowed and 1.9 % separated. Most of the caregivers 54.2%) were aged between21-30 years, 21.3% aged between 31-40 years, 11.9% aged between 10-20 years 7.1% were aged above 50 years and 5.4 % were aged 41-50 years. On occupation, 57% were farmers, 29% were self-employed, while 14% had formal employment. On religion, 75% were Protestants, 21.8%, Catholics, 0.5% non-religious and (0.5%) were Muslims. As regards to the ten health care workers, 60% were nurses, 30% clinical officers and 10% doctors. Most of the health care workers (70%) had worked in the current health facility for more than 5 years and others had worked for between one to five years.

Practice of self-medication

The majority of respondents (98%) had fallen sick or had a family member falling sick within the past three months and most of them (98.5%) confirmed using medicine without doctor`s prescription. The most popular drug used by the respondents was painkillers (41%) for self-medication. This was followed by antibiotics at about 4% and anti-malarial and cough syrup was at 2% and 1% respectively (Figure 1). However, 52% of the respondents used a combination of two or more drugs. The combination of painkillers and piriton was leading at 18% and this was followed by the combination of painkillers, piriton, antibiotics and anti-malarial at 13% (Figure 2).In addition, the combination of painkillers with either antibiotics or antimalarial was 11% and 13% respectively. Other combination of drugs that account for 44% were also observed (Figure 2).

Table 1. Factors that promote self-medication

Evaluating of services at facilities	Self-medication practices		P value
	Anti-malarial	Antibiotics	
a) Do not get services at the facility (n=149	45 (30.2%)	60 (40.3%)	0.14
b) Not satisfied with services (n=137)	32 (23.4%)	48 (35.0%)	0.06
c) Waiting for more than 2 hours (n=120)	28 (23.3%)	37 (30.8%	0.20
d) Staff are hostile (25)	5 (20.0%)	12 (48.0%)	0.0001

The health care workers also confirmed use of self-mediation, in particular pain killers (44%),antibiotics (33%), cough syrup (12%) and anti-malarial (10%). However, they also confirmed lack of documentation on the combination of drugs used by their clients on the health records. It was observed that health care workers report very low self-medication among their clients.

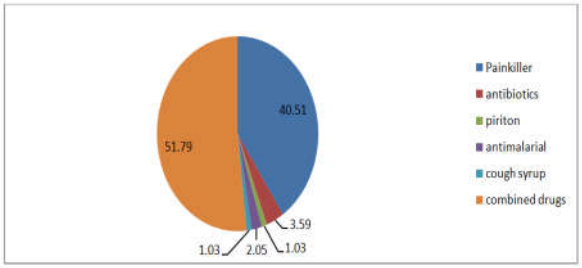

Figure 1. Drugs given by caregiver to children under 5 years

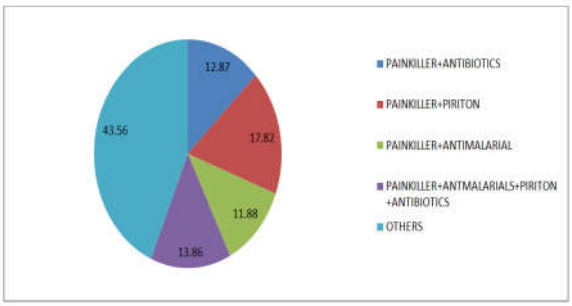

Figure 2. Combination of Drugs used by caregivers on children under 5 years

As regards to the source of the drugs, more than half of the drugs (52%) used for self-medication were obtained from the local chemist. Others were leftovers in the house (10.2%), borrowed (1.0%) or bought from the local shop (6.1%) and others, which accounted for 31% were drugs gotten from multiple sources including the hospital (Figure 3).

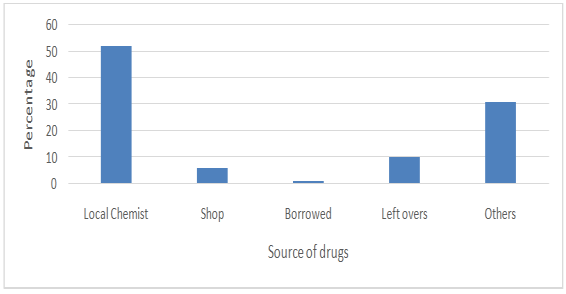

Figure 3. Sources of Drugs used for Self-Medication

Factors that promote self-medication

In order to identify factors that promote self-medication, the respondents were interviewed on the issues that relate to the health facilities, 80.1%of respondents said there were no prescribed drugs in the health facility, 61% said that they took more than 2 hours to get to the health facility and 13% said that health workers were hostile. The majority of health care workers (77%) also confirmed lack of drugs at the health facility. Seventy-seven percent (76.9%) of the respondents noted that they did not get the required services from the health facility while only 23.1% reported to have received the services they sought from the health facility. Seventy-eight percent (78%) of the health workers interviewed said the services in health facilities were offered under one roof while twenty-two percent (22%) said the services were not offered under one roof.

The study sought to ascertain if these concerns could promote self-medication. As shown in Table1, over 40% of those who do not get required services at the facility do practice–self-medication. In particular, 30% and 40% use anti-malarial and antibiotics respectively. It also shows that those who are not satisfied with services or wait for more hours at the facility or face hostility from health care workers do practice self-medication. The use of anti-malarial and antibiotics is also mostly the same against each potential promoter of self-medication (P value > 0.05). However, a very significant value is observed against the staff hostility (P value = 0.002). Interestingly, the health care workers suggested that self-medication can be controlled through "health education" (45%), "availability of drugs in the health facilities" (34%) and "controlled regulation of over the counter drug use- check this statement again" (21%). None pointed out that hostility of the staff at the health facility could contribute to self-medication.

DISCUSSION

According to the findings of this study, most of the caregivers of children under five years used medicine without doctor`s prescription. The finding concurs with the report of a study done by Afolabi in the Britain and United States, which indicated a self-medication prevalence of 75% (Afolabi, 2012) but higher than 58% that was reported by Appia *et al.,* (2003). In addition, a study done in Western Kenya reported a self-medication prevalence of 60% (Ruebush *et al*., 1995). A similar study done in Western Kenya reported a self-medication rate of 19% (Geissler *et al*., 2000), which is much lower than this study finding. However, the study by Geissler et al.(2000) employed longitudinal study design and focused on school going children in Ugingo village and their practice of self-medication in treating common diseases.

Majority of the caregivers, in this study, reported to have used painkillers while anti-malarial and cough syrup was used by a minority. This finding concurs with reports of other studies conducted in India indicating analgesics as the most commonly used drug for self-medication(Zafar *et al*., 2008).Further, a study done by Geissler *et al*. (2000) reported that analgesics were the most commonly used drugs for self-medication at home.

The pain killers may be the main drugs stored in most households since they are readily available in the local drug stores with no prescriptions required. Again people would want to relieve pain as fast as possible due to the discomfort it causes(Brass *et al*., 2011). Slightly more than half of the caregivers used a combination of two or more drugs. The combination of pain killers and piriton was used more compared to others like pain killers, piriton, antibiotics and anti-malarial. Again, combination of painkillers and antimalarial was used more than painkillers and antibiotics suggesting that care givers attribute the presenting signs and symptoms to malaria than other conditions that would present in the same way. Research studies report that combination of drugs by the caregivers when self-medicating can negatively affect the health of children under five years (Olayemi *et al*., 2006).

As regards the source of the drugs, slightly more than half of the drugs used for self-medication were obtained from the local chemist. Other unpopular sources according to the responses were left overs in the house, local shops, some drugs were borrowed among others. These sources have also been reported in other research studies done in India (KomalRaj *et al*., 2015). The high availability of drugs in places other than the pharmacy or drug store has been reported to encourage self-medication (Chang and Trivedi, 2003).

This study found out that there were various factors that promoted self-medication amongst caregivers of children under five years. Most of the caregivers self-medicated due to lack of prescribed drugs in the health facility, this report was confirmed by a majority of the healthcare workers who also participated in this study. Similarly, a large number of the participants had to travel for more than more than 2 hours to get to the health facility while a smaller proportion could not stand the hostility of the healthcare workers and chose to self-medicate. Accessibility, which in this study alludes to the distance from the health facility, is also reported in a study by Hussein *et al (*2010) as one of the promoters of self-medication. Caregivers may have had to spend a lot of money in instances where the hospitals are far away from them compared to the shops dispensing the drugs they needed. For them to reach such hospitals they would incur costs of transportation, the laboratory tests and medications, which turned out to be a lot expensive and not affordable as compared to if they bought drugs from the nearby shops.

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