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IDENTIFYING DRUG USAGE HABITS IN STUDENTS OF VOCATIONAL SCHOOL OF HEALTH SERVICES

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Abstract

Purpose –Unnecessary, wrong, ineffective and costly drug usage causes various problems all around the world. In morbidity and mortality rates or adverse effects of drugs can increase with incorrect and unnecessary drug usage. For these reasons, various solutions have been proposed and improved over the world. "Rational Drug Use (RUD)" is a very vital topic on these problems solutions. Many countries are aware of the importance of RUD organise variety of, trainings, seminars and workshops in this issue. This study aims to identify habituation and incidence of drug usage in students of vocational school of health services. Design/methodology – A study was applied to 120 first year students studying in the Medical Documentation and Secretaryship, Opticianry, Medical Promotion and Marketing, Health Institutions Management. Findings- "Rational Usage of Drug Scores" was used as a data collection tool. The data was also analyzed with respect to the variables such as gender, age, place of birth, and type of high school. The scores were formed by 32 questions totally with these demographic information. In addition, students divided to three main groups (high level scores, mid-level scores and low-level scores) according to their total scores. Semi-structured interviews were performed with 3 students in each group with the lowest score. The final result about the drug usage habits was created with the information gathered in interviews. Principal results- Vast majority of the participants had social security and lived in city centers, country towns. So they could reach health services when they need. Though the participants did not prefer to drug prescription for additional usage at home, they did not use with the other recommendations, they did not recommend drugs due to same reasons. Major conclusions- In this survey, it was found that level RUD of participants mostly middle and high. This result can be related to some causes such as demographic and the other drug usage habits.

Keywords: A Drug Usage Habits, Rational Drug Use, Public Health.

1. Introduction

“Medical therapeutic view was accepted at the WHO conference of 1985 in Nairobi: rational use of drugs requires that patients receive medications appropriate to their clinical needs, in doses that meet their own requirements, for an adequate period of time, and at the lowest cost to them and their community.” (Grand, 1999) In addition, WHO states that “problem of using drug abuse reach important and big dimensions.” Some drugs can bad outcomes as advers effects, resistance, tolerance and drug dependency even if there are used in medico-legal limitations. (Yılmaz et al, 2007) According to estimates of WHO, more than 50% of drugs are prescribed, provided, sold in improperly. Half of patients can not use their drugs properly. (Ministry of health, 2013)

Briefly, doctors choose personal drugs for every patient, according to criterion of effectiveness, convenience, security, cost. (Hocaoğlu et al, 2011) On the other hand, many patients are exposed to use of the wrong drug because of individual unconsciousness or doctor’s inadequate treatment protocols.

WHO advocates 12 key interventions to promote more rational use and one of them is “Public education about medicines.” (WHO, 2013) For this reason, RUD is also an subject of public health. It is important to train to public about RUD for rising the highest rate. All the nations and Turkey that participate in this event paid a lot of importance to this, so RUD is very popular issue for WHO, INRUD (international network for the rational use of drug) ministeries of health, civil public organisations, pharmacist’s associations, schools, universities etc. Republic of Turkey Ministry of Health also works relate to this topic and notice in surveys and educations. According to latest INRUD activities in the May 2012 INRUD News; some surveys and trainings were made as relates it.(INRUD, 2013)

A few study was made in this area in our country. One of them was (Yılmaz et al, 2007) that was investigated the drug usage of the school of health students. The survey determined that “the rate of use of non-prescription drugs was low and highest irrational use of drugs seen in antibiotics, vitamins and analgesics. Irrational use of drugs is affected by social, culturel, economical features and educational factors.” The other survey was made by Karakurt et al (2010). “It was determined that more than half of the students used a medication within the last one month and 23.2% of these medications were bought without prescription.” (Karakurt et al, 2010) According to Celik et al’s survey “in health school student’s, 2010; it was recommended that the students should be consolidated knowledge correctly use of antibiotics.” (Celik et al, 2010)

A few research in “drug usage habits in students of vocational school of health services” as is seen, so this research was made. In this survey, it was aimed to measure perceptions of RUD health services students, because public see them as a role model. The students should have knowledge of RUD for making their job in a good and ethic way.

2. Material and Methods

The study was applied to 120 first year students studying in the Medical Documentation and Secretaryship, Opticianry, Medical Promotion and Marketing, Health Institutions Management. The data was evaluated in terms of total scoring out of 100 points. "Rational Usage of Drug Scores", that was developed by Pinar (2010), was used as a data collection tool. There is no point value to some questions, but the data was collected, evaluated and stated as numerical value.

The data was also analyzed with respect to the variables such as gender, age, place of birth, and type of high school. The students were asked: social health insurances, whether it has and type of insurances and places of residences. The results were made as tables and compared parameters in terms of RUD and demographic information. The scores was formed by 32 questions totally, with these demographic information.

In addition, students divided to three main groups (high level scores, mid-level scores and low-level scores) according to their total scores. First group that has minimum points was formed by 16 students and point rangewas between 0-25 points. Second group, mid-level scores, was formed 53 students and point range was between 26-39 points. Finally third group that has highest point was 38 students and point range was 40 points and above. Some questionnaires were non-evaluation because of not exactly completed.

Semi-structured interviews were performed with three students in each group. The final results about the drug usage habits were created with the information gathered in interviews. The results were separated 13 main groups without demographic information. The data stated with some tables that include percentages and numerical rates. In addition, it was informed with some outcomes from the semi-structured interviews.

3. Results

"Rational Usage of Drug Scores" were evaluated as 13 main groups without demographic features. These groups were: applied first health institutions, use of drugs without consult a doctor, use of drugs with friends/neighbours recommendation, recommendation drugs for friends/neighbours, use of antibiotics, asking for some information from doctor about drugs, reading prospectus and expiration date of drugs, drug usage, behaviours incase of seen advers effects and provide no benefit, knowledge of drugstorage conditions, drug prescription for additional usage at home, herbal treatment at home.

3.1 Demographic Information

It was found that 59% of participants were male and 41% of participants were female students. According to the age scale; 46% of participants were between the age of 15-20, 26% of participants were between the age of 20-24, 12% of participants were between age of 25-29, %9,4 of participants were between the age of 30-34, 4% of participants were between age of

35-39, 2% of participants were between age of 45-49. According to birth places; 61% of participants were from west of the country, 7% of participants were from east of the country, 16% of participants were from north of the country, 7,4% of participants were from south of the country and 8,5% of participants were from middle of the country. When participants compared interms of studying programme; it was seem that 45% of participant study in Opticianry, 36% of participant study in Medical Documentation and Secretaryship, 15% of participant study in Health Institutions Management, 4% of participant study in Medical Promotion and Marketing. It was found that 86% of participants had social security, 14% of participants had no social security. 36% of participant lived in city center, 57% of participants lived in country town and 7,2% of participants lived in town or village.

The participants were evaluated according to apply first health institutions. The percentages: family health center (27), pharmacy(1), private health center (22), state hospital (44), university hospital (2),others (4,4).

Information obtained from interviews:

Group 1: Two students of participants preferred to apply family health center as first health institutions. They thought that family health centers appropriate in simple diseases. Because doctors of the centers could referral to hospitals in case of more serious diseases. In addition, these participants lived in town/village and hospitals in which their town/village could be inadequate. They had to go to hospitals in city center in case of serious diseases. One of the participants preferred to examine spacialist doctors, so they applied private health center as hospitals.

Group 2:They thought that family health centers appropriate in simple diseases. Because doctors of the centers could referral in case of more serious diseases. In addition, they preferred the centers because of taking place near their houses.

Group 3:They preferred family health centers mostly and they preferred private health centers in case of taking medical certifiacate or drug prescription .

3.2 Use of Drugs Without Consult a Doctor

It was seen that 21% of participants use drugs without consulting a doctor, 48% of participants did not use drugs without consult. 31% of participants sometimes use drugs without consulting a doctor. The percentages, whose used drugs this way: analgesics (55), antibiotics (6), vitamins (13), antypyretics (9), anti-influenza drugs(8), antitussives (6), antiallergic drugs (2), dermatological preparats (1), peptic ulcer drugs (1), iron supplementations (0,6).

Information obtained from interviews:

Group 1: They used drugs without consult a doctor. They usually used analgesics and they thought that these groups drugs were less harmful the others. Additively, one of them thought that doctor suggest same group drugs in case of go to the doctor.

Group 2: They used drugs without consult a doctor. They usually used analgesics and they thought that these groups drugs were less harmful the others.

Group 3: They used drugs without consult a doctor. They thought same as the group 2.

3.3 Use of Drugs With Friends/Neighbours Recommendation

The participants were evaluated according to use of drugs with friends/neighbours recommendation. It was found that 9% of participants used drugs with friends/neighbours recommendation, 67% of participants did not use that way and 23% of participants sometimes drug used in this manner. The percentages, whose used drug this way: analgesics (61), antypyretics(19), antibiotics(17), others(3).

Information obtained from interviews:

Group 1: One of the participants from this group did not use drug with friends/neighbours recommendation. But the others use drugs with this way. They usually used analgesics, because they thought the drugs were not so much harmful for health.

Group 2: Most of them use drug with friends/neighbours recommendation. They usually used analgesics and antacids because of same reasons.

Group 3: The participants from this group did not use drug with friends/neighbours recommendation. They thought that drugs recommended could have advers effects, so they did not prefer to use with this way.

3.4 Recommendation Drugs For Friends/Neighbours

The participants were evaluated according to recommendation drugs for friend/neighbours. It was found that 16% of participants recommended drugs for friends/neighbours, 62% of participants did not recommend drugs and 22% of participants sometimes recommended drugs. The percentages of recommended drugs: analgesics (56), antypyretics (16), antibiotics (11), vitamins (1), others (17).

Information obtained from interviews:

Group 1: They recommended analgesics for friends/neighbours, because they though that these groups drugs were less harmful the others. One of participants from this group at once preferred his/her friend eye drop due to think symptoms were same as his/hers.

Group 2: They recommended analgesics and anti-ulcer drugs for friends/neighbours.

Group 3: They did not recommend drugs for friends/neighbours.

3.5 Use of Antibiotics

The participants were evaluated according to use of drugs without consult a doctor. 36% of participants use drugs without consult a doctor, 43% of participants did not use drug this way and 22% of participants sometimes used drugs in this manner.

The participants were evaluated interms of quitting antibiotics the treatment did not completed. 70% of participants quited, 17% of participants did not quit and 14% of participants sometimes quited antibiotics the treatment did not completed. The participants who quit the antibiotics, showed as reason some details. The percentages of them: recruitment/getting better (38), feeling good (35), obliviscence (11), not use more drugs (15).

Information obtained from interviews:

Group 1: They used drugs without consult a doctor and quited antibiotics the treatment did not completed. They quited antibiotics due to recruitment, feeling good, obliviscence. They believed that antibiotic usage was redundant in case of getting better.

Group 2: Some of them used drugs without consult a doctor and quited antibiotics the treatment did not completed. One of them thought that doctor suggest her/his previous antibiotic, so they used previously antibiotic. They mostly quited antibiotics due toobliviscence, the other reason was feeling good.

Group 3: They used drugs without consult a doctor. Sometimes they quited antibiotics due to feel good. They thought that much antibiotic usage could cause adwers effects.

3.6 Asking For Some Information From Doctor About Drugs

The participants were evaluated according to asking for some information from doctor about drugs. 40% of participants asked for some information, 39% of participants did not ask and 21% of participants sometimes asked some details. It was found that the participants asked for some details with respect to some topics. The topics and percentages: affect of drugs, indications (23), usage (26), contents (9), adwers affects (18), drug interaction (5), potion (6), cautions (4), contraindications (2), usage period (9).

Information obtained from interviews:

Group 1:Some of them asked for information from doctor but some of them did not. First group asked information about affect of drugs and usage. Second group members thought that doctors said all information about drug. In addition, they did not have chronic disease so they did not ask for extra information as drug interaction.

Group 2:They did not ask for information from doctor. Due to the fact that they thought doctors give all necessary information about drug, so they did not ask extra information. They did not have chronic disease so they did not ask for extra information as drug interaction. Additively, they believed that pharmacists give usage information.

Group 3:They asked for information from doctor about drug usage.

3.7 Reading Prospectus and Expiration Date of Drugs

The participants were evaluated according to whether read prospectus or not. 69% of participants read prospectus, 13% sometimes read and 17% did not read. The participants read prospectus due to some reasons. The reasons and percentages: affect of drugs, indications (19), usage (20), contents (7), advers affects (19), drug interaction (6), potion (8), cautions (9), contraindications (6), usage period (7).

The participants were evaluated depending on read or not read expiration dates of drugs. 75% of participants read expiration dates, 8% of participants not read expiration dates, 16% of participants sometimes read them.

Information obtained from interviews:

Group 1:They sometimes read prospectus of drugs. They usually read to know about usage and advers affects. They also looked expiration date of drugs before usage.

Group 2:Some of them read prospectus of drugs. The participants who did not read the prospectus did not use much drugs, so did not read it. Some of them read expiration date of drugs, but some of them did not read. Second group also did not know where written this data.

Group 3:They read prospectus of drugs and also looked expiration date of drugs before usage. But they did not know exactly where written this information.

3.8 Drug Usage

The participants appraised according to whether they use drug as recommended by the doctor. 90% of participants used drug as recommended by doctor, 8% of participants sometimes used drug as recommended by doctor, 3% of participants did not use drug as recommended by doctor.

The participants noticed three type of issue: hunger- satiety, hour intervals and dosage. 35% of the answers were hunger- satiety, 34% of the answers were hour intervals and 30% of the answers were dosage.

Information obtained from interviews:

Group 1:They used drugs as recommended by doctor. They noticed “hunger- satiety, hour intervals and dosage.” Most of them paid attention especially hour intervals in usage antibiotics.

Group 2:They used drugs as recommended by doctor. They noticed “hunger- satiety, hour intervals and dosage.”

Group 3:They used drugs as recommended by doctor. They noticed “hunger- satiety, hour intervals and dosage.”

3.9 *Behaviours Incase of Seen Advers Effects and Provide No Benefit*

The participants were evaluated in respect to behaviours incase of seen advers effects. Results and percentages: quitting drug (26), applying doctor (48), continuing to use (3), quitting drug and applying doctor (23).

The participants were evaluated in respect to behaviours incase of seen provide no benefit. Results and percentages: quitting drug (22), applying doctor (54), continuing to use (6), quitting drug and applying doctor (18).

Information obtained from interviews:

Group1:They quited drug and incase of seen advers effects and then they applied to doctor. Most of them quited drug and applied doctor incase of seen provide no benefit. They thought that it should be behaved in the same way in both cases and they should not continue to use drugs.

Group 2: They quited drug and applied doctor incase of seen advers effects. Most of them quited drug and applying doctor incase of seen provide no benefit. One of them state that if an active ingredient in drug caused an allergic reaction, he/she immediately quited drug.

Group 3:They quited drug and applied doctor incase of seen advers effects. They quited drug and applied doctor incase of seen provide no benefit.

3.10 *Knowledge of Drug Storage Conditions*

The participants were evaluated depending on knowledge of drug storage conditions. 29% of participants store drugs in room-temperature, 23% of participants store drugs in medicine cabinet, 23% of participants store them in fridge, 9% of participants store drugs according to temperature conditions, 13% of participants store drugs according to temperature that written on drug box, 2% of participants store them with the other ways.

The participants were evaluated depending on behaviours incase of unused drugs. The participants said that “I chuck outthem incase of expiration date has passed(64%), I give them in

need (2%), I give them health institutions (9%), I keep them at my home (25%), I do not keep drug at my home (1%), others (1).”

Information obtained from interviews:

Group 1: They stored their drugs usually in room-temperature and in medicine cabinet. The participants who store the drugs in room-temperature thought that drugs usually store in room-temperature, but they did not read prospectus for the other storage conditions.

Group 2: They stored their drugs usually drugs in room-temperature or conjecturally stored them. One of them trained in three years in faculty of pharmacy, so know where store the drugs.

Group 3: They stored their drugs usually drugs in room-temperature and they read storage conditions on prospectus of drugs.

3.11 *Drug Prescription For Additional Usage At Home*

The participants were evaluated in terms of drug prescription for additional usage at home. 23% of participants preferred to drug prescription for additional usage at home, 63% of participants did not preferred, 13% participants sometimes preferred drug prescription for additional usage at home. The participants, who preferred most frequent drug prescription for additional usage at home, some type of drugs. These drugs and percentages: analgesics (43), antibiotics (17), antipyretics (20), anti-influenza drugs(10), others (9).

Information obtained from interviews:

Group 1: Most of them preferred drug prescription for additional usage at home. They usually preferred analgesics, anti-influenza drugs and antacids. They sometimes directly bought from pharmacy without drug prescription.

Group 2: They did not prefer drug prescription for additional usage at home. There was a pharmacy belong to brother of one participant. This participant did not prefer drug prescription for additional usage at home, because he could reach drugs from his brother’s pharmacy.

Group 3: They sometimes preferred drug prescription for additional usage at home. They usually preferred antibiotics.

3.12 *Herbal Treatment at Home*

The participants were evaluated in terms of herbal medicine practice at home. 30% of participants practiced herbal therapy at home, 46% of participants did not practice herbal therapy at home, 24% of participants sometimes practiced herbal therapy at home.

It was found that the participants practice herbal treatment at home in some diseases. These diseases and percentages: upper respiratory tract infections (36), lower respiratory tract infections (4), urinary tract infection (5), headache (15), backache (5), otitis (2), sinusitis (8), diarrhea (10), stomachache (13), asthma (1), depression (1).

Information obtained from interviews:

All groups did not practice herbal therapy at home.

4. Discussion

In this survey, it was found that level RUD of participants mostly middle and high. This result can related to some causes such as demographic and the other drug usage habits.

On the contrary, data of WHO results showed that the vast majority of the participants used drugs as recommended by the doctor. In addition, they did not use antibiotics and other drugs without consult a doctor. They preferred to apply doctors when they were ill. Some of participants used “analgesics, vitamins and antipyretics” without consult a doctor. These positive behaviours (preferring apply doctor) showed RUD level was high, but most of participants quited antibiotics before the treatment not completed. This was a negative indicator for RUD.

Most of the participants usually applied state hospitals. They applied to family health centers for simple diseases. Vast majority of the participants had social security and lived in city centers, country towns. So, they could reach health services when they needed. Though the participants did not prefer to drug prescription for additional usage at home. But some of them preferred to drug prescription for additional usage at home only “analgesics, antibiotics and antipyretics.” The groups of drug inferred from this investigation were similar to resembling surveys.

Most of participants did not use with the other recommendations because of being easy to reach health services. They did not recommend drugs due to same reasons.

Most of them read prospectus and expiration date of drugs. They used and stored drug as wrtitten on it and doctor’s saying.

Vast majority of the participants did not prefer herbal treatment at home, because they could apply to hospitals and family health centers.

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