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DEVELOPMENT OF MEDICAL SAFETY DATA REPORTING PROGRAMS AND HEALTH EDUCATION CENTERS

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ABSTRACT: The reporting of medical safety data (especially medical data related to drug effectiveness and patient safety) and the supplying of the health education and general medical culture are very important issues in any society. And as we all live in one world, so, we should deal with these issues as international issues not only as local issues, and there are reasons and problems make that only a few percent of the people around the world who can participate or know about these important issues. The purpose of this research to find the main reasons of these problems, and I used a simple questionnaire to get simple answers contain nominal data to get the static analysis of the data easily, and I developed and designed a new comprehensive international database center and programs for health and medical information and drug safety data reporting that are suitable for everybody in the world with different cultures and languages.

INTRODUCTION: The need for reporting the medical safety data and health education (data and any information about the drug and patient safety) is very important in any society, and the delaying in dealing with these issues (reporting and education medical safety data) may lead to very serious problems related to drug and patient. So, we should deal with these issues as international issues not only as local issues. For example, we need the medical information about the effectiveness and the side effects of the new drugs rapidly as possible to know the complete benefits and the risks of the drug before anybody else harm. As the harm that occurred due to use of Valdecosib before withdrawing from the market in 2004 in the United States of America^{7,8}.

In this research I tried to find some answers about the main reasons that may cause this weak cooperation of the people about these issues, as the reporting of their medical notices (data related to drug and patient safety), and the main reasons of the weakness of their medical culture and health education, too. Especially in developing countries, despite the developing countries population is about 82% of all world population^{1, 2, 3}, and I tried to find a new ways to solve these problems as possible, and I developed a new comprehensive international data programs for health and medical information and drug safety data reporting that are suitable for everybody in the world with different cultures and languages.

MATERIALS AND METHODS: In this research and through about 1 a year (2015 - 2016), I made a simple Questionnaires Design (face to face and computerized)⁴, and got the most needed answers as (YES or NO) nominal data⁶ that can be analyzed (by calculating that percent of each answers Yes or No) simply and rapidly from random adult people aged 21-60 years old with

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different nationalities and cultures⁵. And I selected one group that contains public people only, and another group contains medical providers (e.g. Pharmacist, nurses, physicians, technicians) only. I used the computer in Graphic and Figures Design, and I used some information from the internet, too.

The Importance of Health Education and Reporting of Medical Safety Data: The need for medical safety data reporting and health education data supplying (data and any information about the drug and patient safety) is very important in any society, and the delaying in dealing with these issues (reporting and education medical safety data) may be lead to very serious problems related to drug and patient safety, as the data related to the pharmacological actions of the drug as effectiveness, side effects of the drug, drug - drug interaction, cautions, precautions, drug and patient safety. So, we should deal with these issues as an international issue not only as a local issues.

For example, we need the information about the effectiveness and the side effects of the new drugs rapidly as possible, to know the complete benefits and risks of the drug before anybody else harm, as that happened many times before with a lot of drugs as Tegaserod, drotrecogin Alfa, Valdecobix, etc⁷.

There are some organizations and programs that a lot people can report their data about the drug safety to them as Med watch, The Joint Commission (JC), Institute for Safe Medication Practices (ISMP) in the United States of America (USA), but these programs do not cover all the peoples with the different cultures and with the different cultures, languages in the world because of some reasons as the complexity and the language difficulty. As well as, the needing for health education and general medical culture is so important in any society, too. Because the Health education builds peoples' knowledge, skills, and positive attitudes about health. Health education teaches about physical, mental, emotional and social health. It motivates people to improve and maintain their health, prevent disease, and reduce risky behaviors^{12,13}, but a lot of people do not know or cannot deal with the health education or medical cultures or drug data centers in internet websites or books.

The Main Reasons of These Issues: Firstly, I made surveys by the simple Face-to-face Questionnaires and computerized (as Facebook, WhatsApp and emails) Questionnaires, too^{4,10}.

I selected random adult people from different cultures and nations. And I made the most answers as nominal data YES or NO that can be analyzed (by calculating the percent of each answers Yes or No) simply and rapidly⁶, and I selected one group of them contained adult public people only, and the other group contained only the medical providers e.g. pharmacist, nurses, physicians, technicians^{5,11}, by these following questions:

First Question: Do you know exactly the name of the program or website of national-local- institution or global institution which you can report your important or serious Medical notices (Data) related to drug and patient safety to it directly?

Second Question: Do you know about the care, the attention and the trust of these institutions, if you have an important medical notices related to drug and patient safety?

Third Question: Do you know a trusted information sources concerned about (any of these) the health education or drugs or other general medical cultures in internet websites or books?

I Found that Answers:

First Question's Answers: In public people: 881 from 1022 (about = 86.2%), while in the medical providers 423 from 601 (about = 70.3 %): did not know a suitable program or web site of the institution (as Med watch) or the exact their national institution where they can report their important medical safety data directly to it. But they (who say NO) only know to try searching in the ministry of health or ask the health providers.

Second Question's Answers: In public people: 754 from 913 (about = 82.6 %), while in the medical providers 391 from 527 (about = 74.2 %): did not know the care and the trusted completely about reporting to these institutions. Because they think that is: time consuming, difficult, complicated, no benefit and not completely trusted. But some of them (who say NO) may trusted partially - on their national institutions care about their reporting of medical safety data.

Third Question's Answers: In public people 604 from 628 (about 96.1 %), while in medical providers 376 of 512 (about 73.4%): didn't know about the trusted sources for health education or general medical information in internet websites. But some of the public people (who say NO) slightly trusted in some health providers and some

media as national television channels. And some public people and health providers (who say NO) say that they will try to search on internet websites, but they don't trust in most of these websites so much. We can summarize the results' numbers in the following **Table 1**.

TABLE 1: ALL QUESTION'S ANSWER'S DATA

	NO- Answers	YES-Answers	Total Answers
First Question's Answers:	Public: 881 (about 86.2%) Health provides: 423 (about 70.3 %)	Public: 141 (about 13.8%) Health providers: 178 (about 29.7%)	Public: 1022 Health providers: 601
Second Question's Answers:	Public: 754 (about 82.6 %) Health provides: 391 (about 74.2%)	Public: 159 (about 17.4%) Health providers: 136 (about 25.8)	Public: 913 Health providers: 527
Third Question's Answers:	Public: 604 (about 96 %) Health provides: 376 (about 73.4%)	Public: 24 (about 4%) Health providers: 136 (about 26.6)	Public: 628 Health providers: 512

As well as, the medical providers (the 136 who said YES about the third question) know some web site as Pud Med, Drugs, Medscape and some books as the British National Formulary (BNF). But only (61 of 136) know the trusted drugs websites only, and they did not know health education or medical culture websites, and rarely read it, because of any reasons as: Difficult to understand the information they read because of the foreign languages or language accent, Complex phrases with a lot of long details, Time consumes, and they concerned about their job information only. And I found that a lot of these websites (about 80%) have a lot of disadvantages as it may be: written by non professionals, not accurate, not updated, or not true at all.

Ways to Solve These Problems and Using New Suitable Ways: Firstly, we need to educate everybody about the medical notices reporting importance, health education, medical culture importance, about the programs and institutions that concerned about reporting and supplying the data, by all suitable manners as media, magazines, internet and as a messages and advertisements in facebook and internet websites, by using summarized phrases about the needed knowledge to encourage all the people around the world to cooperate in medical safety data reporting and to learn health education and medical cultures, too. We may use phrases like:

- Your medical notice reporting is important for everybody.
- Trust yourself and trust in us.
- We need a collaboration of everybody.

- Your medical notices and your share may change many things.
- Your reporting data related to drug and patient safety will not consume in time, free and secure.
- Health Education and medical culture are important for you, your family and for everybody.

Secondly, we will need to develop a new comprehensive international database (for drugs, diseases and other medical information) centers or programs that suitable for everybody in the world with different cultures, languages and with different education level. And should be free, not have much writing or selected questions, more simple than existed programs, trusted, easy to understand, voluntary, in free internet web site and should be under reasonability of free institutions to avoid conflict of interest as possible¹⁶. So for these Requirements, I designed and tested 2 suitable programs I called them: Medical Data Reporting International Program (MDRIP). And the other is: Health Education and Medical Cultures International Program (HEMCIP).

First Program (MDRIP): For medical safety data reporting, suitable for public people or professionals, too. It has: 3 personal questions (Name and Address of contact are writing answers, but the job may be selected answers as medical or non-medical). 5 medical questions (selecting answers), because the people not love complicated, long required information and time consuming programs. One place for any additional (writing or

selecting) medical safety data (as data, notices, observations or opinions related to drug and patient safety or the disease) with maximum 1500 letters. All required data in the program are optional, except about 3 required answers about drug generic

name or trade name, and the medical safety data. As well as, all programming tools should be in only one page of internet website to avoid confusion and complexity as possible *e.g.* as in the program design **Fig. 1**.

Medical Data Reporting International Program (MDRIP)

Your Name: Your Job: Address of Contact:

Trade Name: select as: Zantac 150mg, Voltaren, etc.

Generic Name: select as: Ranitidine, Cephalexin, etc.

Dosage Form: select as: Capsules, Tablets, Syrup, Vials, etc.

Observed Medical Data: select as: Nausea, Vomiting, Bleeding, etc. .

Severity: select as: Mild, Moderate, Sever.

For Reporting More Details Write Here:

SEND

FIG. 1: MEDICAL DATA REPORTING INTERNATIONAL PROGRAM (MDRIP)

The Second Program (HEMCIP): For health care, education and medical culture, suitable for public people, mainly and may be used for professional, too. It contains 3 simple windows: One for drugs Queries, the second one for diseases Queries and the third one for other medical Queries (as devises, medical tests). And each of them has 3 degrees of supply information:

The first degree of supplying information (for public people) has only simple, clear and arranged review (summarized review), that contains about 120 wards, and involves the main indications, side effects, cautions, dose. The second degree of supplying information (for more educated persons

or for persons with higher medical culture interest) has a more detailed review, as review that contains about 500 wards. The third degree of supplying information (for professionals) contains more detailed review. As review that contains every concerned information and the others concerned internet websites as in the design **Fig. 2**.

As well as, all programming tools should be in only one page of internet website to avoid confusion and complexity as possible. And these 2 programs can be united in one program, I called it: Reporting and Supplying Medical Information International Program (RSMIIP) as in the design **Fig. 3**.

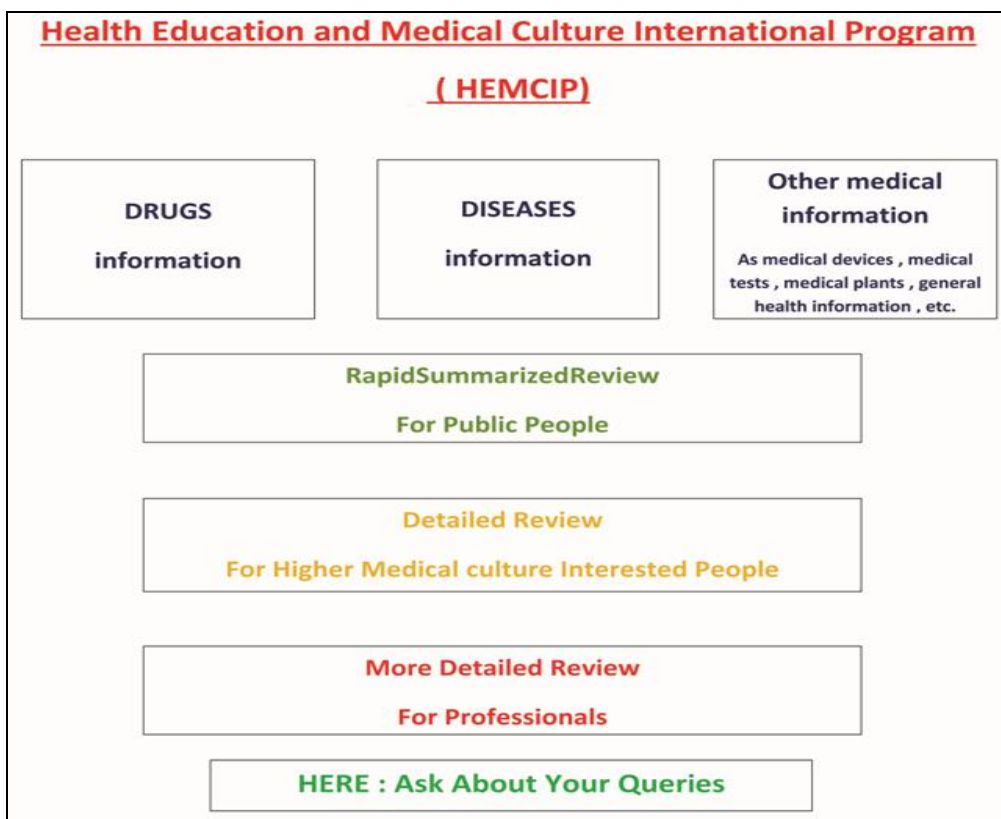


FIG. 2: HEALTH EDUCATION AND MEDICAL CULTURES, INTERNATIONAL PROGRAM (HEMCIP)

Reporting and Supplying Medical Information International Program (RSMIIP)

SELECT YOUR language

The form is divided into two main sections:

- Left Section: Here For Health and Medical Information Supplying**
 - Categories: DRUGS information, DISEASES information, Other medical information (As medical devices, medical tests, medical plants, general health information, etc.).
 - Review Levels: RapidSummarizedReview For Public People, Detailed Review For Higher Medical culture Interested People, More Detailed Review For Professionals.
 - Button: HERE : Ask About Your Queries
- Right Section: Here For Medical safety Data Reporting**
 - Fields: Your Name, Your Job, Address of Contact.
 - Trade Name: [input] select as: Zantac 150mg, Voltaren, etc.
 - Generic Name: [input] select as: Ranitidine, Cephalexin, etc.
 - Dosage Form: [input] select as: Capsules, Tablets, Syrup, Vials, etc.
 - Observed Medical Data: [input] select as: Nausea, Vomiting, Bleeding, etc.
 - Severity: [input] select as: Mild, Moderate, Sever.
 - Text area: For Reporting More Details Write Here: [input]
 - Button: SEND

FIG. 3: REPORTING AND SUPPLYING MEDICAL INFORMATION INTERNATIONAL PROGRAM (RSMIIP)

RESULTS AND DISCUSSION: A lot of people are not enough educated about the reporting medical notices (data related to drug and patient safety), and about health education or other general medical cultures (as education about drug, diseases, first aids), too. And we should deal with these issues as international issues not only as a local issues. The people trust on global institution (as Medwatch) more than local their institution (for medical safety data reporting), and the people not much interested in medical safety reporting because they have no time, not good at the foreign languages, not love complicated applications and not like a lot of questions that found in the existed programs and institutions as in Medwatch (FDA form 3500 and 3500 B) ⁹, they haven't much educated about health education and medical culture because they did not know about the websites or the books that concerned about health education and medical culture as well as, I failed to find another studies that can treat these issues as an important international issues for all peoples around the world with different languages and cultures, dynamically. So we will need a new ways or new programs which are a simple, free, easy, noncomplex, and suitable for all of peoples with different cultures, different education levels and different languages. Like these programs (which I designed and tested):

- Medical Data Reporting International Program (MDRIP) and Health Education
- And Medical cultures International Program (HEMCIP)
- And Reporting and Supplying Medical Information International Program (RSMIIP).

The information that obtained from the (MDRIP) is computerized, rapid, and free, can be arranged and evaluated easily, and has slightly acceptable degree of accuracy. And should be reach to all concerned global, national institutions and the drugs manufacture as fast as possible for investigation and estimation. In spite of any disadvantages of the data that obtained from (MDRIP) because of the base and the confounded on this method ^{17, 18}, but the data will be significant data, because the large number of data, the more significant of this data will be ^{19, 20}. The degree of accuracy and significance of the data affected by a number of information, samples size and the experience and

the qualification of the person who will report this information, too^{19, 20}.

So, although the (MDRIP) is suitable for all people around the world not only for the medical providers, but the data that obtained by medical providers are better. These programs {(MDRIP), (HEMCIP) or (RSMIIP)} should be free on the internet, websites and under the responsibility of freedom, non-profit or may non-governmental institution to avoid the conflict of interest as possible ¹⁰ to make people more trusted on it. So, I recommend World Health Organization (WHO) or these programs can be as a part of good trusted program or institution as ISMP and Med watch (and we can call it as 3500I) ⁷. As well as, these programs as {(MDRIP), (HEMCIP) or (RSMIIP)} can be design modified to become suitable for many other fields, too. As education, cultivation, business, social science and food. That is a good step in real cooperation between all peoples around the world for medical safety data reporting and supplying of health education and medical culture information, too.

CONCLUSION: The study in this research revealed that we need the Development of Medical Safety Data Reporting Programs and Supplying Health Education Information Centers to be suitable for peoples with different cultures, different education levels and different languages is important and we should deal with these issues as an international issues not only as local issues. Like these programs (which I designed: (MDRIP), (HEMCIP) or (RSMIIP)). Or maybe as a part of good trusted program or institution as Med watch and FDA (and we can call (MDRIP) as 3500I).

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