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Güneybatı Etiyopya'da Sağlık Profesyonelleri Arasında İlaç Yan Etkisi Bildirme Bilgi, Tutum ve Uygulaması

[Knowledge, Attitude and Practice of Adverse Drug Reaction Reporting among Health Professionals in Southwest Ethiopia]

ÖZET

AMAÇ: İlaç yan etkisi; tanı, tedavi veya profilaksi için insanlarda kullanılan dozdaki ilaca ortaya çıkan karşı tehlikeli ve istenmeyen reaksiyondur. İlaç yan etkisi takibi, henüz az dikkat edilen bir ilaç bilgisi alanıdır. Kendi kendine (spontan) bildirim halen ilaç yan etkilerini tespit etmek için temel dayanaktır. Bu çalışmanın amacı Güneybatı Etiyopya'da seçilmiş sağlık tesislerindeki sağlık profesyonelleri arasında ilaç yan etkisi bildirme bilgi, tutum ve davranışını değerlendirmektir.

YÖNTEM: Ocak 2010'da seçilmiş sağlık tesislerindeki sağlık profesyonelleri arasında kesitsel çalışma dizaynı kullanıldı. Hekim dışı reçete düzenleyenler, eczane teknisyenleri ve yardımcı sağlık personeli çalışma dışı bırakıldı. Veriler gönüllü hekimlerden (intörn ve üzeri), hemşirelerden ve eczacılardan kendi kendine uygulanan soru formu ile toplandı ve SPSS version 16.0 kullanılarak analiz edildi..

BULGULAR: Çalışmaya 82 sağlık profesyoneli katıldı. Bunlardan sadece 19 (%23,17)'u ve 21 (%25,61)'i ulusal bir rapor sistemi olduğunu ve ilaç yan etkisini rapor etmek için sarı kart kullanıldığını bilmekteydi. Onbeş (%15,85) katılımcı kendi klinik uygulamaları sırasında son oniki ayda ilaç yan etkisi ile karşılaştı, fakat hiçbir sorumlu kişiye bildirmedi. Katılımcıların bilgi ve uygulaması yeterli olmasa da, yanıtlayanların 47 (%57,31)'i ilaç yan etkisini bildirmenin görevlerinin bir parçası olduğu ve genelde toplum için, özelde hasta için önem taşıdığ konusunda hemfikirlerdi.

SONUÇ: Bizim çalışmamız; sağlık çalışanları arasında ilaç yan etkisi bildirmede farkındalık oluşturmak ve teşvik etmek için büyük bir gereksinim olduğunu güçlü bir şekilde önerir. Bil gi yokluğu ve kendi kendine bildirme hakkındaki yanlış düşünceler ile kısmen açıklanabilecek, ilaç yan etkisi bildirimi ve belgelemesi yoktur

SUMMARY

AIM: Adverse drug reaction is noxious and unwanted reaction to drugs at dose used in humans for diagnosis, treatment or prophylaxis. Adverse drug reaction monitoring is an area of drug information that has been given little attention yet. Spontaneous reporting is currently the major back bone for the detection of adverse drug reactions. The objective of this study was to assess the knowledge, attitude and practices of adverse drug reaction reporting among health professionals in selected health facilities in southwest Ethiopia.

METHOD: A cross-sectional study design was used among health professionals in selected health facilities in January 2010. Prescribers other than physicians, junior pharmacy technicians and also health assistants were excluded. Data was collected using self administered questionnaires from volunteered physicians (Medical interns and above), nurses (Diploma and above) and Pharmacy professionals (Diploma and above) and analyzed using SPSS version 16.0.

RESULTS: A total of 82 health professionals were participated in the study. From those 82 participants, only 19 (23.17%) and 21 (25.61%) knew the existence of national reporting system and a yellow card of adverse drug reaction reporting form. Thirteen (15.85%) participants encountered adverse drug reaction in the past 12 months in their clinical activities, but none of them reported to responsible body. Even though the participants' knowledge and practice were inadequate, most of the respondents 47 (57.31%) agreed that adverse drug reaction reporting is part of duty of them and important to the public in general and to the patient in particular.

CONCLUSION: There was no documentation and reporting of adverse drug reaction, which might partly be explained by lack of knowledge and misconceptions about spontaneous reporting. Our study strongly suggests that there is a great need to create awareness and to promote the reporting of adverse drug reaction amongst health professionals, which will lay a solid foundation for healthcare professionals to be diligently involved in quality pharmacovigilance and spontaneous reporting in their future practices.

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INTRODUCTION

Adverse drug reaction is noxious and unwanted reaction to drugs at dose used in humans for diagnosis, treatment or prophylaxis. It is unintended effects of a medicine including idiosyncratic effects which occur during its proper use. They differ from accidental or deliberate excessive dosage or drug maladministration. This shows that in addition to the pharmaceutical properties of the drugs the

characteristics of the patients predisposes an adverse drug reaction. Detection, recording and reporting of adverse drug reaction is of vital importance and health professionals are thus encouraged to perform this properly (1).

Adverse drug reaction reporting system is an area of drug information that has been given little attention yet. It is possible that drugs produce initially unanticipated effects (adverse or potentially useful) after their approval for marketing (2). Such effects can best be identified by pharmacy professionals, physicians and nurses because of their close proximity with their patients.

The history of international pharmacovigilance (adverse drug reaction monitoring) goes back as much as thirty years when the 20th world's assembly adopted a resolution to start a project on the feasibility of international system of monitoring adverse reaction of drugs. This resolution was based on thalidomide disaster that caused death of thousands of children in ten countries creating the basis of WHOS' program on International system for Drug Monitoring (IDM).As a result on International system for monitoring adverse drug reaction based on data from national centers was proposed. After a pilot project was carried out in USA an international data base was established at WHO head quarter in Geneva in 1971 and moved to Uppsala, Sweden in 1978 (2, 3).

The goal of adverse drug reaction detection and reporting systems are to aid in post marketing surveillance of FDA approved medications and to identify ways to decrease adverse drug reaction risks (4)

Spontaneous reporting has contributed significantly to successful pharmacovigilance. The contribution of health professionals, in this regard, to ADRs databases is enormously significant and has encouraged ongoing ascertainment of the benefit-risk ratio of some drugs, as well as contributed to signal detection of unsuspected and unusual ADRs previously undetected during the initial evaluation of a drug. The Uppsala Monitoring centre (UMC, WHO), Sweden is maintaining the international database of adverse drug reaction reports (currently about 4.7 million case reports) received from several national centres (96 member countries). However, still, it is estimated that only 6-10% of all ADRs are reported. Although, Ethiopia is participating in the program, its contribution to UMC database is very little. This is essentially due to the absence of a vibrant ADR monitoring system and also lack of a reporting culture among health care workers (14,15).

The concept and basic knowledge on the need for detecting, monitoring, reporting and communication of feed back is not adequately prevalent among the health professionals as well as the government bodies. It is also believed that creating awareness on the importance and relevance of adverse drug reaction monitoring is a guarantee for establishing and sustaining sound adverse drug reactions reporting program (5,6).

A study done in Iran on pharmacists' knowledge, perception, practice and reasons for not reporting ADR showed that 29% of the respondents were not aware of Iran pharmacovigilance center. More than 50% of those respondents felt it was a professional obligation and only 17% of the respondents seemed to be aware of the reporting of suspected reaction to any drug on the market (7).

Another study in Lagos, Nigeria on perceptions of doctors to ADR reporting showed that 89.9% of them considered doctors as the most qualified health professionals to report ADR. Only 40.4 % of the respondents knew about existence of National Pharmacovigilance center in their country (8).

On the other side, one study in British on attitudes of UK hospital pharmacists towards their understanding and attitude about ADR reporting showed that 86.1% respondents replied that ADR was a professional obligation for pharmacists and of those, 49.8% felt that ADRs reporting should be compulsory, with 43.0% stating it should be voluntarily (9).

In India one study showed that ADRs were encountered by both under graduates (46%) and prescribers (66%) during their clinical project exercise and patient care respectively (11).

Thus, understanding the knowledge, attitude and practice (KAP) of adverse drug reaction reporting among health professionals among health professionals in selected health facilities is critical for countries like Ethiopia in general and Jimma zone in particular for reducing drug related problems. Even though there were some studies conducted in this area in other parts of the world, there was very little or no in number at the study area during this study period. This study will show the level of problems in general awareness and attitude of health professionals, and the information gathered from this study will provide baseline data for further study. Besides, the study will provide baseline data to assist different governmental and non-governmental organizations in establishing appropriate evidence-based strategies to promote adverse drug reaction detection and reporting and to enhance health professionals to improve medication use processes.

The aim of this study was to assess the knowledge, attitude and practices of adverse drug reaction reporting among health professionals in selected health facilities in South West Ethiopia.

MATERIAL and METHOD

A cross-sectional study design was conducted to assess the knowledge, attitude and practices of adverse drug reaction monitoring among health professionals in selected health facilities in southwest Ethiopia specifically Jimma zone. Jimma zone is one of the 18 zones found in Oromia regional state. It is located 352 km away from Addis Ababa in south western direction. It has a total of 17 woredas and two town administration and has about 2,692, 740 population. In this zone there is 1 specialized hospital (JUSH), 1 district hospital (Limmu genet Hospital) and about 36 health centers. For the study purpose four health facilities were selected. These include Jimma University specialized Hospital (JUSH), Agaro town health center, Serbo health center and Shebe health center. By taking Jimma town as center, Jimma University Specialized Hospital was selected and Agaro town health center from North West; Serbo health from Eastern and Shebe health center was selected from the southern direction. The study was conducted in January, 2010.

The source population was all health professionals who were working in the selected health facilities in Jimma zone during the study period. Sample population was all physicians (doctors), pharmacy personnel (diploma and above) and nurses (diploma and above) who were working in the selected health facilities (JUSH, Agaro town health center, Serbo health center and Shebe health center) during the study period.

Convenience sampling technique was applied and those who were available and volunteered to fill the questionnaire during the study period were included in the study. Inclusion criteria for physicians were medical doctor including medical interns and above; for pharmacy personnel were druggists and above and for nurses' diploma and above were used. Exclusion criteria for physicians were other than medical doctors; for pharmacy personnel other than diploma and above and also for nurse other than diploma and above nurses were used.

Data were collected using a pretested structured questionnaire which was self-administered and filled by the respondents independently. The questionnaire contained information about socio-demographic characteristics of the health professionals (age, sex, profession, year of experience and educational level), knowledge, attitude, and practice about adverse drug reaction reporting. We determined the knowledge about adverse drug reaction reporting using 5 yes / no questions. Each correct question corresponded to 1 point, and there was a total of 5 points for the 5 questions. Respondents were considered to have adequate knowledge if they scored 4 and 5 out of 5. They were considered to have inadequate knowledge if they scored below 4 out of 5. The students' attitudes were measured using twelve items rated on a three-point likert scale as (1) agree (A), (2) neutral (N) and (3) disagree (D). Using the three-point scale for twelve questions we arbitrarily set the maximum score for each respondent at 36 and the minimum at 12.We decided that a high score (more than 50%) was indicative of positive attitude while a low score (less than or equal to 50%) would be indicative of a negative attitude. The students' practice was measured identifying whether the health professionals encountered, documented or reported the ADRs or not.

Data were then coded, checked for completeness and consistency. Then the data were entered and analyzed using SPSS for windows version 16.0 statistical soft ware program. For descriptive statistics, results were expressed in terms of percentages and presented using tables.

For ethical clearance, a formal letter was written from School of Pharmacy; Jimma University to head of respective health facility to get permission. Self administered questionnaire was given to each health professional after ensuring voluntariness to fill the questionnaire.

RESULTS

The study was conducted in selected health facilities of Jimma zone in 82 health professionals to assess the knowledge, attitudes and practices of adverse drug reaction reporting. From 82 health professionals, 15 (18.29%) were physicians, 18 (21.95%) were pharmacy personnel and 49 (59.76%) were Nurses. Most of the respondents 36 (43.90%) were in the age range of 26-35 years and are males 49 (59.79%). Majority of the respondents 57 (69.51) are having 0 to 5 years of experience (Table 1).

From 82 health professionals, only 17 (20.73%) of respondents able to differentiate ADR from side effects and only 16 (19.51%) respondents knew the term pharmacovigilence. Similarly, only 19 (23.17%) and 21 (25.61%) respondents knew the availability of national reporting system and ADR reporting form in Ethiopia respectively (Table 2).

Table-1: Socio-demographic characteristics of health professionals in selected health facilities of Jimma zone, South west Ethiopia, January, 2010.

Variables		Number(N=82)	Percent
Age	**18-25**	24	29.27
	26-35	36	43.90
	36-45	12	14.63
	>45	10	12.20
Sex	**Male**	49	59.76
	Female	33	40.24
Profession	**Physician**	15	18.29
	Pharmacypersonnel	18	21.95
	Nurses	49	59.76
Level of education	**Specialist**	3	3.66
	Generalpractitioner	12	14.63
	Bachelordegreepharmacy	8	9.76
	Bachelordegreenurse	28	34.15
	Diplomapharmacy	10	12.20
	Diplomanurses	21	25.61
Years of experience	**0-5years**	57	69.51
	6-10years	11	13.41
	11-15years	8	9.76
	>=16years	6	7.32

Table 2: Knowledge regarding adverse drug reaction reporting among health professionals in selected health facilities of Jimma zone, south west Ethiopia, January 2010.

Variables	Number (n=82)	Percent
Do you think that adverse drug reaction is the same as with side effect		
Yes	17	20.73
No	65	79.27
Do you know the term pharmacovigilance?		
yes	16	19.51
No	66	80.49
Do you know national ADR reporting system?		
Yes	19	23.17
No	65	79.27
Do you know the availability of ADR reporting form?		
Yes	21	25.61
No	61	74.39
Do you think that ADRs are well documented at the time a drug is marketed?		
Yes	20	24.39
No	62	75.61

Table 3: General awareness regarding adverse drug reaction reporting among health professionals in selected health facilities of Jimma zone, south west Ethiopia, January 2010.

Variables	Number (n=82)	Percent
To whom do you think that ADRs should be reported?		
Manufacturers	5	6.10
Ministry of health of the country	4	4.88
EPA	3	3.66
DTC of respective health facility	25	30.49
DACA	38	46.34
Pharmacy department	7	8.54
Who do you think is primarily responsible to remind and follow up patients about side effects of drugs they are given?		
Pharmacists	59	71.95
Physicians	13	15.85
Nurse	10	12.20
What is your source of information about ADR?		
National drug formulary and STG	64	78.05
Standard text books	9	10.98
Notes from the training	8	9.75
Drug sales man	1	1.25
What possible factor (s) do you think predispose(s) a patient to ADR?		
Dispensing error	32	39.03
Over dose	21	25.62
Prescription error	17	20.73
Life style of the patient	9	10.96
Non adherence to the drug regimen	3	3.66

Regarding respondents knowledge about responsible health institutions and responsible health professionals for ADR reporting replied that DACA 38 (46.34%) and pharmacy personnel 59 (71.95%) were responsible. The research result also revealed that majority of the respondents 64 (78.05%) were using national drug formulary and standard treatment guideline as the main sources for information about adverse drug reaction. According to the respondents view, the main factor predisposing to ADR was dispensing errors 32(39.03) (Table 3).

From those 82 health professionals, only 13 (15.85%) encountered ADR in their clinical practice / services, but none of them recorded in patient follow up chart / card and also none of them reported via yellow card to responsible body (Table 4).

Regarding the attitudes of health professionals about ADR reporting in this study showed that 47 (57.31%) respondents agreed that ADR reporting should be part of duty of them but in contrary 47 (57.31%) and 46 (56.10%) disagreed that one report of ADR makes no difference and reporting is not useful for the specific patient respectively. Besides, most respondents 59 (71.95%), 58 (70.73%) and 60 (73.17%) agreed that reporting ADR are important for the public, health care system and part of health care respectively; but majority of them70(85.37%) complain that there should be a need to be sure that ADR is related to the drug before reporting (Table 5).

Compared to physicians and nurses, pharmacy personnel have adequate knowledge (more than 50% right response) regarding the difference between ADR and side effect, the term pharmacovigilence, availability of national reporting system and availability of ADR reporting form. On the other hand, physicians encounter more patients with ADR than pharmacy personnel and nurse, but none of them recorded appropriately and reported to responsible body. Only 7(35.00%) pharmacy personnel replied that they usually advise their patients about possible adverse effects of drug(s) during dispensing (Table 6).

From a total of 82 health professionals, only 19(23.17%) respondents have adequate knowledge while the rest are having inadequate knowledge. According to the three- likert scale, majority of the respondents had answered the 12 attitudinal questions scoring 27 (75.00%) and thus have positive attitude towards ADR reporting. Even though the health professionals have positive attitudes towards ADR

reporting, none of them documented appropriately and reported the encountered ADRs to the responsible body (Table 7).

Table 4: General practices regarding adverse drug reaction reporting in the past twelve months among health professionals in selected health facilities of Jimma zone, South West Ethiopia, January 2010.

Variables	Number	Percent
Have you ever encountered patient with ADR in your clinical practice, in the last 12 months? (n=82)		
yes	13	15.85
No	69	84.15
How may patients with ADR, did you see? (n=13)		
One	8	61.54
Two	3	23.08
Three	1	7.69
Four	1	7.69
Have you noted the ADR you encountered on the patient clinical record? (n=82)		
yes	0	0
No	82	100
Have you ever reported the ADRs? (n=82)		
yes	0	0
No	82	100
How often do you give advice to your patients on possible adverse effects of drugs you prescribed, dispensed or administered? (n=82)		
Usually	20	24.39
Sometimes	35	42.68
Never	27	32.93

Table 5: Attitudes towards adverse drug reaction reporting among health professionals in selected health facilities of Jimma zone, south west Ethiopia, January 2010 (N=82)

Variables	Agree	Neutral	Disagree
	No (%)	No (%)	No (%)
ADRs should be reported spontaneously at regular base	44(53.66)	26(31.71)	12(14.63)
Reporting ADR is part of duty of Health professionals	47 (57.31)	10(12.20)	25(30.49)
Reporting drug safety is important for the public	59(71.95)	11(13.42)	12 (14.63)
Reporting drug safety is important for the health care system	58(70.73)	14 (17.07)	10(12.20)
There is a need to be sure that ADR is related to the drug before reporting	70(85.37)	3(3.66)	9(10.97)
Only ADR of prescription drugs need to be reported	17(20.73)	21(25.61)	44 (53.66)
Only ADR that cause persistent disability should be reported	8(9.76)	36(43.90)	38(46.34)
Reporting ADR is part of health care	60(73.17)	12(14.63)	10 (12.20)
Reporting ADRs improves quality of patient care	60(73.17)	10(12.20)	12(14.63)
One report of ADR makes no difference	14(17.07)	21(25.62)	47(57.31)
Reporting is not useful to the patient	7(8.53)	29(35.37)	46(56.10)
Reporting creates additional work load	42(51.21)	10(12.20)	30(36.59)

Table 6: General awareness regarding adverse drug reaction reporting among health professionals in selected health facilities in Jimma zone, south west Ethiopia, January, 2010

Variables	Physicians	Pharmacy personnel	Nurses
	No (%)	No (%)	No (%)
Do you think that ADR is the same as with side effect? (n= 17)	5(29.41)	10(58.82)	2(11.77)
Do you know the term pharmacovigilance? (n=16)	2(12.50)	14(87.50)	0
Do you know national ADR reporting system? (n=19)	3(15.79)	15(78.95)	1(5.26)
Do you know the availability of Reporting form? (n=21)	5(23.81)	14(66.67)	2(9.52)
Do you think that ADRs are well documented at the time a drug is marketed? (n=20)	8(40.00)	12 (60.00)	0
Have you ever encountered patient with ADR in your clinical practice, in the last 12 months? (n=13)	7(53.85)	5 (38.46)	1(7.69)
Have you recorded the ADR you encountered on the patient clinical follow up chart? (n=13)	0	0	0
Have you ever reported the ADRs? (n=13)	0	0	0
Do you usually give advice to your patients on possible adverse effects of drugs you prescribed, dispensed or administered? (n=20)	10(50.00%)	7(35.00%)	3 (15.00%)

Table 7: Level of knowledge, attitude and practices in the past twelve months regarding adverse drug reaction reporting among health professionals in selected health facilities of Jimma zone, south west Ethiopia, January 2010.

Variables	Number	Percent
Level of knowledge (n=82)		
Adequate	19	23.17
Inadequate	63	76.83
Attitude of health professionals (n=36)		
Positive (> 50% response)	27	75.00
Negative (</=50% response)	9	25.00
Practices in the past twelve months (n=82)		
Record and report the encountered ADR	0	0
Not record and report ADR	82	100

DISCUSSION

Adverse drug reaction monitoring is an area of pharmaceutical care which deals mainly with the detection, management and reporting of adverse reactions of drugs which may result from drugs that is taken in normal dose for prophylaxis, prevention or treatment. These adverse drug reactions may range from mere inconvenience to permanent disability and death (4,5).

The study was conducted in selected health facilities of Jimma zone among 82 health professionals to assess the knowledge, attitudes and practices of adverse drug reaction reporting. The health professionals who were selected as the study population were physicians, pharmacists and nurses who available at the selected health facilities during the study period. This was because these professionals have direct contact with the patient and also the drug(s) that is/are given for the patient.

In this study out of the total 82 respondents, 17 (20.73%) of them replied that ADR was the same as with side effects while 65 (79.27%) of them said that ADR was different from side effect. But WHO recommended that in order to avoid inflating of the figures of drug induced diseases; it is convenient to retain the term side effect for minor effects which are related to the pharmacological properties of the drug (6). This might lack of adequate information regarding ADR in the curricula and/ or trainings.

Among 82 respondents, only 19 (23.17%) and 21 (25.61%) health professionals knew the availability of national ADR reporting system and reporting form in Ethiopia. This might be due to inadequate promotion of reporting form and reporting system and weak regulatory body contact with the health facilities in general and the health professionals in particular.

Among 82 respondents, 32 (39.03%) of them replied that dispensing error was the primary factor predisposing to ADRs. This might be due to the fact that dispensers are the expected health professionals to know more about drug properties including their adverse effects than other professionals and as a result they are expected to remind the patients about drugs than other health professionals. Twenty one (25.62% of them also believed that drug overdose was the primary factor predisposing ADRs. From this, we can understand that respondents were having inadequate knowledge about adverse drug reaction.

Among the total of 82 respondents, only 16 (19.51%) of the respondent (14 pharmacy personnel, 2 physicians) knew the term pharmacovigilance and its activities. A study done in Lagos, Nigeria on perception of doctors to ADR reporting showed that 40.4% of the respondent knew about existence of National Pharmacovigilance center in their country (8,10), and this showed that they have more awareness towards ADR monitoring than professionals in this study.

From a total 82 respondents, only 13 (15.85%) (7 physicians, 5 pharmacy personnel and 1 nurses) of the respondents encountered patients with ADRs in the last 12 months, none of them actually recorded in the patient follow up chart and reported it to the concerned body. A study from Italy reported that doctors had little information concerning ADRs and ADR reporting systems (16). One study in Turkish also showed that 65% of the health professionals encountered patients with ADRs in the last 12 months and 7% of them actually reported it to National Pharmacovigilance Center in their country (12). These results showed that Turkish health professionals are more familiar with ADRs reporting than this study area and thus this showed that there is a need to familiarize them.

Thirty eight (46.34 %) of the respondents in this study believed that ADR should be reported to DACA and 25 (30.49%) to DTC of the respective health facilities. It is obviously known that among the major activities of DACA and DTC was monitoring ADR in the health facilities. In Saudi Arabia a study done showed that 19% of the respondents considered the pharmacy department is responsible for receiving and reporting ADR results, but this study showed that 7 (8.54%) which was about half the study in Saudi Arabia (11).

Twenty (24.39%) of the respondents in this study said that they gave advice for their patients usually, and 27 (32.93%) of them replied that they never advice their patients on ADRs due to patient load and poor set up. Majority of the respondents 59 (71.95%) believed that pharmacy personnel were the responsible body to remind and follow up patients on ADRs. These might be due to the reason that pharmacy personnel were experts on drug(s) and drug related problems, and were expected to deliver all drug related information for the patients and other health professionals.

Most of the respondents 64 (78.05%) used National Drug Formulary and Standard Treatment Guidelines as sources of information on ADRs and other information on drugs because majority of them had these references in their respective health facility. A study in Saudi Arabia showed that 13.2% of the respondents read about ADRs of drugs from standard text books and 12.6% of them learn it from their colleagues (11).

Among 82 health professionals, 47 (57.31%) respondents agreed that ADR reporting is part of duty of them but in contrary 46 (56.10%) and 47 (57.31%) disagreed that one report of ADR makes no difference and reporting is not useful for the specific patient respectively. A study in British showed that 2.0% of the surveyed professionals felt that one report of ADR made no difference, which was much lower than this study area (9). Besides, most respondents 59 (71.95%), 58 (70.73%) and 60 (73.17%) agreed that reporting ADR are important for the public, health care system and part of health care respectively; but majority of them70(85.37%) complain that there should be a need to be sure that ADR is related to the drug before reporting. A study in Netherlands revealed that 55% of community pharmacists said that before reporting they needed to be convinced of the causality between the drug and adverse reaction (13). A study in Saudi Arabia showed that 96% of hospital pharmacists mentioned

that they must be sure of causality between drug and adverse drug reaction before reporting and in Netherlands 82% said that reporting should be as inherent part of pharmaceutical care (11,13).

Forty four (53.66%) health professionals agreed that the importance of spontaneous regular reporting of ADRs and 12 (14.63%) of them opposed this idea. A study done in British showed that 49.8% of the surveyed population felt that ADR reporting should be compulsory and another study which was done in Saudi Arabia showed that 98.3% of the respondents considered the reporting of ADR to be integrated to their professional duties (9,11). A study in Saudi Arabia showed that, almost all respondents acknowledged the importance of ADR reporting (11).

CONCLUSION

There is no documentation and reporting of adverse drug reaction, which might partly be explained by lack of knowledge and misconceptions about spontaneous reporting. Our study strongly suggests that there is a great need to create awareness and to promote the reporting of ADR amongst health professionals, which will lay a solid foundation for healthcare professionals to be diligently involved in quality pharmacovigilance in their future practices. Training sessions to clarify the role of various healthcare professionals in pharmacovigilance, the events to be looked for and reported and to address the various perceived obstacles to spontaneous reporting, will hopefully fill the observed gap in knowledge and practices.

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