



Pharmacy ethics: evaluation pharmacists' ethical attitude

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Abstract

Alterations in pharmacy practice from prescription dispensing to more patient-centered relationship intensifies the necessity of clinical decision-making. Pharmacists' knowledge as well as ethical reasoning affects their clinical decision-making. Unfortunately in Iran pharmacy ethics did not develop along with medical ethics and special considerations are of major importance. The study was designed to evaluate pharmacists' attitude toward some principles of bioethics.

A cross-sectional survey was performed on a sample of Iranian pharmacists attended in continuous education programs in 2010. Based on the pharmacists' attitude toward common ethical problems, 9 Likert-type scale scenarios were designed. A thousand pharmacists were surveyed and 505 questionnaires were filled. For the whole questionnaire the strongly disagree answer was the most ethical answer. On a scale from 1-5 on which 5=strongly disagree, the total score of pharmacists ethical attitude was 17.69 ± 3.57 . For easier analysis we considered the score of 1 for agree and strongly agree answers, score of 2 for neutral answers and score of 3 for disagree and strongly disagree answers. The total score in confidentiality for all participants was 4.15 ± 1.45 out of 9, in autonomy 6.25 ± 1.85 out of 9, in non-maleficence 5.14 ± 1.17 out of 6 and in justice was 2.27 ± 0.89 out of 3, however there was no significant difference between men and women in the total score and the score of each theme. The older participants (> 40 years) significantly had lower total score ($P < 0.05$) as well as the score of each theme ($P < 0.05$), except for non-maleficence. The work experience showed impact on the pharmacists' attitude toward autonomy and the participants with more than 5 years work experience significantly obtained lower score in this theme.

Compiling ethical guidelines and improving pharmacy ethics curriculum is highly critical to provide the best pharmaceutical care and to make clinical decisions in critical situations. Therefore further quantitative and qualitative investigations into finding pitfalls and challenges in this issue are highly recommended.

Keywords: Pharmacy ethics, Ethical attitude, Confidentiality, Autonomy.

Introduction

The importance of ethical issues in pharmacy practice highlights the necessity of considering ethical principles by pharmacists. In the recent 10 years medical ethics has been followed seriously in the world as well as in Iran but pharmacy ethics has not been as developed as medical ethics. Teaching pharmacy ethics has been started from about 3 years ago in pharmacy schools however, it is far from standards. In the last two decades pharmacy practice has changed from prescription dispensing to more patient-centered relationships and more emphasis on pharmacists responsibility for the favorable treatment outcomes. Therefore, the pharmacists are responsible for providing the best health care services the same as the other health care providers. In this regards pharmacists should cooperate well with other health care professionals, and patients. Although ethical problems in pharmacy involve different areas such as clinical pharmacy, pharmaceutical industry, community pharmacies, insurance companies as well as policy makers; however Rawwas et al reduced pharmacy ethics into two major issues; pharmaceutical industry and ethical economic questions (1).

The most important service provided by pharmacists in Iran is answering a wide range of queries of patients. Therefore, the pharmacists need to be well-oriented with ethical issues and the way of implementing the best ethical solution at critical conditions. There is no ethical code available for pharmacists in Iran and they need to be knowledgeable about the ethical principles and be competent to conduct a professional judgment. As health care providers, pharmacists are faced with critical thinking and decision-making and have to follow their ethical guidelines; however, their decisions may be influenced by some considerations.

Very few if no research has been conducted on the ethical dilemmas pharmacists confronted with and the ethical attitude of pharmacists about the dilemmas (2, 3). Therefore this study was performed at the aim of surveying pharmacists' attitude toward special ethical dilemmas to find out pitfalls and incorporate the results of such studies into guidelines as well as designing a proper comprehensive teaching plan in pharmacy ethics.

Method

We surveyed the pharmacists' attitude toward some common ethical issues in everyday working using a self-administered questionnaire. The survey was conducted on authorized Iranian pharmacists from May 2010 to December 2010. Nine scenarios were developed by authors based on common ethical problems in pharmacy practice. The questionnaire consisted of two parts: the first part assessed demographic data of study participants including age, gender, year of experience, and

location of employment (pharmacy, manufacturer, and drug importer Company); the second part consisted 9 scenarios using a 5-point Likert scale with responses ranging from 1=strongly agree to 5=strongly disagree to assess pharmacists agreement on the presented reaction of the pharmacist in each scenario. Two experts in medical ethics reviewed the questionnaire and commented before it was finalized. The survey instrument ensured participants anonymity and the participation was voluntary. The reliability of questionnaire was estimated in 20 pharmacists using the Chronbach's alpha coefficient of internal consistency which was 0.53. Then the questionnaire was distributed in several continuing pharmacy education programs among pharmacists.

The study was approved by Tehran University of Medical Sciences institutional review board. All data were analyzed using SPSS software version 16. We categorized scenarios into 4 themes: confidentiality, autonomy, justice and non-maleficence. For the whole questionnaire the strongly disagree answer was the most ethical answer. For easier analysis we considered the score of 1 for agree and strongly agree answers, score of 2 for neutral answers and score of 3 for disagree and strongly disagree answers. Chi-square, One Way ANOVA and Paired-Sample T tests were used.

Results

Of 1000 questionnaire distributed between pharmacists, five hundred and five pharmacists (50.5%) completed and returned the questionnaire. Three questionnaires were excluded because of printing defects. Two hundred and sixty five (52.8%) participants were female and 196 (39%) were male. The mean age of participants was 43.2 ± 18.1 years and the mean work experience was 13.9 ± 10.3 years. Of participants 87.8% (n= 390) worked in pharmacy, 5.6% (n= 28) in drug importer companies and 5% (n= 25) in manufacturers and the rest of them did not mention their location of employment. The themes, and their associated scenarios were as follows:

- Theme 1 (Confidentiality); Scenarios 1, 3, 7;
- Theme 2 (Patients Autonomy); Scenarios 2, 5, 6;
- Theme 3 (Non-maleficence); Scenarios 4, 9;
- Theme 4 (Justice); Scenario 8.

Participants' answers to each scenario are summarized in table 1. The total score of the questionnaire calculated as 27, however the mean total score of participants attitude toward ethical issues was 17.69 ± 3.57 . The total score in confidentiality for all participants was 4.15 ± 1.45 out of 9, in autonomy 6.25 ± 1.85 out of 9, in non-maleficence 5.14 ± 1.17 out of 6 and in justice was 2.27 ± 0.89 out of 3. There was no significant

difference between men and women in the total score and the score of each theme. In the theme of confidentiality 49.8% of participants got score 1-3, 40.1% score 4-6 and 10.1% score 7-9. Of participants 24.7% got total score 9-15, 63.4% score 16-21, and 11.9% score 22-27. In autonomy theme 11.8% got score 1-3, 32.3% 4-6 and 56% 7-9 score respectively. In their attitude toward non-maleficence 8.1% of the pharmacists, got 1-3 score and 91.9% got 4-6 score. Regarding the age of participants and its effects on their attitude toward ethical issues, the older participants (> 40 years) significantly had lower total score (16.9 ± 3.78 vs. 18.58 ± 3.15) ($P= 0.000$) as well as the score of each theme ($P < 0.05$), but their age did not influence their attitude toward non-maleficence. The work experience showed impact on the pharmacists' attitude toward autonomy and the participants with more than 5 years work experience significantly obtained lower score (6.07 ± 1.84 vs 6.48 ± 1.64) in this theme ($P= 0.038$); however, work experience did not affect their attitudes toward the rest of the themes. The location of employment did not alter the pharmacists' attitude toward ethical issues studied in this survey.

Discussion

Overall the study participants obtained 65.5% of total score of ethical attitude which is less than expected and it seems to be because of lack of knowledge in this field. Therefore the necessity of teaching ethics is of great importance. Supplying enough information to patients by pharmacists raises several doubts about the type of information, the type of provision of information, the amount of information, to whom the information should be given which include considering ethical principles such as patients confidentiality, justice and autonomy, and non-maleficence as bioethics principles (4-6). Obviously in ethical conflicts everybody has to choose the least bad option because there is no clear cut. Veatch et al explained ethical dilemma as a problem which does not have a single right or wrong solution in which all people will agree (7). In professional ethics, decision-making gets involved in procedural rather than normative ethics and is based on moral reasoning (8). In addition sometimes legal obstacles make the issue more complicated. However we suggested that the age, gender, location of employment and work experience of participants may affect their ethical reasoning. Wilson et al believes that females show more tendencies toward empathy, verbal and social skills in contrast to men who are more interested in independence, dominance, space, and mathematics (9). Latif provided support for this theory and observed higher level of ethical reasoning in female pharmacy students (10). Gilligan stated that women show more responsibili-

ty in care while men have higher attitude toward justice (11). Our results show that there is no difference between men and women attitude toward ethical issues such as confidentiality, autonomy, justice, and non-maleficence as well as their whole ethical view. Although Bill et al observed no difference between men and women attitude toward end-of-life care, female students responded more favorably toward death and end-of-life care (7).

Role-modeling is used in medical teaching as a useful method of education in both ethical and clinical aspects (12). Investigations indicate that seniors are considered as a model for their junior colleagues and students in clinical practice (13). So, their professional approach has educational consequences. Bearing this in mind, our results worry us about the ethical attitude of seniors and its impact. Considering the age, it was surprising that the older ones quantitatively had lower attitude toward justice, autonomy and confidentiality. Therefore, they got lower total score of ethical attitude in this survey; while the age of the pharmacists did not influence their attitude toward non-maleficence. Therefore, it is suggested that there is a consensus on the prima facie duty of non-maleficence among most pharmacists.

Our study could not show any difference between pharmacists' ethical attitude according to their neither location of employment nor the themes of confidentiality, autonomy, justice and non-maleficence affected. Chaar developed a validated test as professional ethics in pharmacy (PEP) and indicated that work place is the most significant predictor for PEP test (8). Yet the amount of the impact of work place on pharmacist ethical approach has not been described well, we expect community pharmacists rather than pharmacists working in drug companies encounter more ethical dilemmas.

Work experience influenced the pharmacists attitude toward autonomy and the pharmacists who had more than 5 years work experiences had lower level of attitude toward autonomy; while their attitude toward the other themes did not differ. Nilsson et al in a qualitative content analysis of interviews found that clinical experience affects clinical decision-making (14).

Previously Vitell et al determined that information disclosure is the most ethical problem the pharmacists encounter with (15). The total score of confidentiality of the study participants was 4.15 out of 9 and cumulatively 89.9% of them got less than 6 score. According to the scenarios, it means that most of the participants agree to disclose patients information to a close relative without patients permission because of utilitarianism and the rest of them (10%) considered patients privacy. These two ways of approaching confidentiality may be displaced at different situations. It seems

necessary to increase sensitivity of pharmacists to the consequences of their practice when disclosing patient's information.

The data analysis did not reveal any pattern helping in defining the reason underlying the pharmacists' response. Having pointing out these 4 themes as the most important dilemmas in this study, it seems reasonable to investigate further scenarios to find out the other critical issues. It would be of value to interview the pharmacists as well as pharmacy specialists more literally on their conceptions of the importance of these themes to identify the reason of choosing one answer by a pharmacist. The variation in the pharmacists answer to the scenarios might bring their different level of ethical knowledge as well as lack of a uniform approach.

Regarding the impact of ethical attitude in clinical decision-making, higher level of ethical attitude may provide more adaptability to work-related constraints and those professionals with higher ethical attitude may less get involved in questionable clinical decision-making situations.

None of the participants passed training course on pharmacy ethics in undergraduate level. It seems that pharmacy educational programs should more focus on enhancing students' ethical attitude. In agreement with this hypothesis the successful incorporation of a multi-course sequen-

tial learning curriculum in nursing and dental students education was determined which increased their ethical attitude (12, 16).

The authors willingly realize that due to the essence of the investigation, there was no realm for them to verify more details about the scenarios. Several respondents revealed that they cannot reply to the questions without further information and the incidence of this was high enough. The response rate was somehow satisfactory however the rate of missing data more complicates the conclusion. It is important to notice that generalizing the conclusion of such studies in the real community using questionnaire is limited. Therefore, a qualitative approach considering an interview is highly recommended. Furthermore it seems that clinical moral and legal concerns should be incorporate in a pharmacy code of ethics in different specialties.

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Table1. Relative distribution of response choices for each scenario

No of Scenarios	Theme	Number (%) Agree	Number (%) Neutral	Number (%) Disagree
1. Disclosing information about a transplant patient to his fiancé	Confidentiality	416 (85.8)	17 (3.5)	52(10.7)
2. Proposing brands instead of generic drugs according to the insurance coverage	Autonomy	109 (22.9)	18 (3.8)	349 (73.3)
3. Disclosing oral contraceptive usage by a girl to her mother	Confidentiality	293 (60.4)	28 (5.8)	164 (33.8)
4. Dispensing amphetamines to a medical student	Non-maleficence	124 (25.3)	34 (6.9)	333 (67.8)
5. Disclosing side effects of prednisolone to an asthmatic patient	Autonomy	319 (66.2)	26 (5.4)	137 (28.4)
6. Proposing herbal drugs for alleviating postmenopausal symptoms instead of synthetic estrogen and progesterone	Autonomy	161 (32.9)	37 (7.6)	291 (59.5)
7. Disclosing patients HIV/AIDS to the dentist who is his/her brother	Confidentiality	418 (86.7)	8 (1.7)	56 (11.6)
8. Dispensing tramadol to a non-addict patient instead of an addict	Justice	143 (29.9)	61 (12.8)	274 (57.3)
9. Assisting voluntary abortion in special situation	Non-maleficence	36 (7.5)	28 (5.8)	419 (86.7)

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