The Pharmacology Teachers in Undergraduate Colleges and Universities Studied the Effect of Pharmaceutical Care on Community Residents

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Abstract: Objective To provide reference basis for pharmacology teachers in colleges and universities to further develop pharmaceutical care for community residents.METHODS: 800 permanent residents in four urban districts of Chifeng were selected by voluntary sampling method. Questions on rational use of cold drugs designed by oneself were used before and after pharmaceutical care intervention to evaluate the effect of intervention.RESULTS: Before intervention, 800 questionnaires were sent out and 800 were collected with a recovery rate of 100%.A total of 800 questionnaires were sent out after intervention, and 728 were collected with a recovery rate of 91.0%.After intervention, the awareness rate of community residents on the knowledge related to diseases such as “cold is mainly caused by virus”, “cold is self-limited disease”, “cold stage” and so on was significantly increased compared with before intervention ($P < 0.05$).The correct answer rates of “the medicinal ingredients of cold medicine”, “the action of the medicinal ingredients of compound cold preparation”, “the medication principles of cold medicine” were significantly increased compared with those before intervention ($P < 0.05$).The answer to the question “Do you immediately take antibiotics for the common cold?”The utilization rate after intervention was significantly lower than that before intervention ($P < 0.05$).CONCLUSIONS: It is very necessary for pharmacology teachers in colleges and universities to carry out pharmaceutical care of rational use of anti-cold drugs for community residents.Pharmaceutical care for rational drug use of common diseases has a significant effect on improving self-medication of community residents, which is worthy of further promotion.

1. Introduction

In recent years, local undergraduate colleges and universities across the country have been actively transforming and developing their school-running reforms in order to improve their school-running level and their ability to serve the society.In terms of serving the society, local undergraduate institutions include local social governance construction services, economic construction services, cultural services, educational services, etc. [1].Chifeng University, as one of the 100 application-oriented undergraduate universities in the national “Industry and Education Integration Development Project Construction Planning Project” and “Inner Mongolia Autonomous Region Transformation Development Pilot University”, has been actively practicing and exploring in serving the society.In response to national “healthy China” strategy, “the transformation development, service society” the implementation of school educational philosophy and pharmacology team out of the school In-depth community, give priority to with “knowledge of common diseases of rational drug use” topic of pharmaceutical care, and respectively before, during, and after pharmaceutical care survey to understand the people grasp of the basic knowledge for the rational use of drugs, pharmaceutical care In order to improve the ability of safe drug use and self-medication for the community residents in the future, and to provide better and more effective pharmaceutical care to maintain the health of the whole people, the author summarized his experience.

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2. Objects and Methods

2.1 Object

Voluntary sampling method was adopted to select residents from Tuanjie Community of Hongshan District, Wangfu Garden Community of Songshan District, Chenglong Community and Sunshine Community 200 participants, all of whom were willing to cooperate with the survey.

2.2 Methods

In the form of questionnaire survey.According to the basic symptoms of common diseases, medication principles of common drugs, therapeutic drugs and matters needing attention in application, the pharmacology team modified the questionnaire through pre-investigation, and finally formed the “Questionnaire on medication knowledge of community residents” before and after the lecture.Survey method: Field survey was adopted. Questionnaires were filled in by residents. If residents could not fill in the questionnaires independently, volunteers would ask them face to face for each item.Quality control: pharmacology team teachers and college students volunteers as investigators, conduct unified training for investigators before the investigation, and formulate investigation specifications.Pharmaceutical care mainly includes :(1) distribution of publicity materials.Publicity of rational use of anti-cold drugs will be carried out in the form of “Interpreting Health” popular science knowledge reader, “Tips on Cold Medication” publicity card, posters and banners, etc., to create a health education atmosphere for rational use of anti-cold drugs.

(2) Conduct special lectures on “Rational Application of Cold Medicine”.(3) Publish the WeChat official account to provide one-to-one answers to residents' questions.Before the intervention, 200 questionnaires were distributed to each community, and 200 questionnaires were collected by the method of distributing, filling in and collecting on the spot. A total of 800 questionnaires were distributed to the first four communities after the intervention, and 800 were collected with a recovery rate of 100%.After the intervention, a total of 800 questionnaires were distributed in the four communities, and 728 questionnaires were collected in the same way as before the lecture, with a recovery rate of 91%.

2.3 The Questionnaire is Set

Taking the “rational use of cold” as an example, a questionnaire was designed.The main content should include the following aspects :(1) the basic information of the residents (such as sex, age, education level, occupation, etc.).(2) Residents coping with colds Way.(3) Basic knowledge of the disease.(4) Basic knowledge of medication.

2.4 Statistical Method

SPSS Statistics 19.0 was used for data processing. Counting data was expressed as rate, and descriptive statistical analysis was used for $\chi 2$ test. The correlation between the two indicators was the number of non-parametric correlation According to Kendall's Tau-B correlation analysis, $P < 0.05$ indicated a uniform difference Meaning of calculation.

3. The Results of

3.1 Basic Situation

Among the 800 residents surveyed, there are 256 males (32.0%) and 544 females (68.0%).The age distribution showed that 52 (6.5%) were $\leqslant$40 years old, 85 (10.6%) were 41-50 years old, 261 (32.6%) were 51-60 years old, 286 (35.8%) were 61-70 years old, and 116 (14.5%) were $\geqslant$71 years old.The distribution of education level showed that 169 cases (21.1%) had college education or above, 321 cases (40.1%) had high school education or technical secondary school education, 145 cases (18.1%) had junior middle school education or primary school education, and 165 cases (20.6%) had other education.The occupation distribution showed that 52 (6.5%) were engaged in education, 64 (8.0%) were engaged in state organs, 87 (10.9%) were engaged in public institutions,

346 (43.3%) were engaged in enterprises and 251 (31.4%) were engaged in other sectors.

3.2 Community Residents on the Basic Knowledge of the Grasp of the Degree

From the following aspects to understand the residents in the intervention before and after the grasp of the basic knowledge of cold degree.

(1) Cause: Did you know that colds are mainly caused by viruses?

(2) Characteristics: Do you know that cold is a self-limiting disease?

(3) Do you know the stages of cold?

(4) Do you know the symptoms of a cold?

After lectures, question-answering, publicity and other means of intervention, the same group of residents then conducted a questionnaire survey.

The awareness rate of all items after intervention was significantly higher than that before intervention ($P < 0.05$).

3.3 Comparison of Rational Use of Antimicrobials in Community Residents Before and after Intervention

“Do you immediately use antibiotics for the common cold?”For this question, after the intervention, the community residents did not immediately use antibiotics for cold, which was 21.3% higher than before the intervention, and the awareness rate was significantly higher than before the intervention, with statistical significance ($P < 0.05$).

4. Discuss

Community pharmaceutical care refers to the fact that pharmacists go to the grassroots level and enter the community, actively make face-to-face contact with residents and provide pharmaceutical care, so as to ensure the safe, effective and economic use of drugs for patients and achieve the purpose of improving the quality of life of patients [2].With the improvement of residents' awareness of health care and the popularization of self-medication, residents' demand for community pharmaceutical care is particularly urgent [3,4].According to the current situation, many community residents' cognition and behavior of safe drug use are still inadequate, and their awareness of drug use education needs to be strengthened [5-7].After the intervention of pharmaceutical care, the residents' grasp of knowledge related to cold was significantly improved.

4.1 Differences in the Ways That Community Residents Chose to Deal with Colds Before and after the Intervention

This survey showed that most community residents would first choose drugstores or their own medicine once they caught a cold, and there was no statistical difference before and after intervention ($P > 0.05$).With the gradual reform of the medical system and the implementation of the medical insurance system, “serious illness into the hospital, minor illness into the drugstore” has changed people's health consumption concept to the drugstore, which has become an important way of public health care.As can be seen from Table 2, no matter before and after the intervention, the majority of residents chose drugstores or family medicine boxes.It is worth noting that there are many problems in the management and use of family medicine boxes by residents, such as prominent drug safety problems [8], not timely cleaning of expired drugs, insufficient number of licensed pharmacists in social pharmacies, uneven professional quality, and unsatisfactory pharmaceutical care [9].Therefore, the drug administration departments and pharmaceutical workers should strengthen the guidance and management of household standing drug use, strengthen the policy guarantee of licensed pharmacists, expand the team of pharmaceutical care personnel, and strengthen the training to ensure the public drug use safety.

4.2 The Difference of Community Residents' Basic Knowledge and Knowledge of Cold and Its Medication Before and after Intervention

The causes and characteristics of community residents to catch a cold, cold stage, the symptoms

of a cold and cold drugs composition, the composition of compound preparation and its effect on the drug ingredients, the principle of cold medicine medicine, a cold if you must use the knowledge such as antibacterial, all items are statistically significant before and after intervention ($P < 0.05$).Before the intervention of “Is cold caused by virus”, 187 people knew it, accounting for 23.4%, which was similar to the 26.2% of residents who knew that virus was the most likely pathogen of cold reported by Zheng Jiatang [10].Residents, especially the application of antimicrobials, before cold will first take antibiotic 362 people, accounting for 45.3%, according to the survey that some people think that the antibacterial drug is anti-inflammatory drugs, can accelerate the cold condition improving, it has to do with Zheng Jiatang [10] the cause of the reported 66.7% of the residents use of antimicrobial agents, hope to reduce the fever, cough, runny nose, sore throat, fatigue, muscle pain and other symptoms similar;After the intervention, 175 (24%) residents still chose antimicrobial drugs first, which was significantly different from that before the intervention ($P < 0.05$).This indicates that the community residents have gained more basic knowledge of rational drug use of cold through pharmaceutical care, improved their understanding of the correct application of cold and anti-cold drugs, and especially enhanced their profound understanding of the use of antimicrobial drugs for common cold and the consequences of their abuse. However, 24% of them still choose antimicrobial drugs first.All these results suggest that pharmacology teachers in colleges and universities should carry out pharmaceutical care guidance purposefully and in a planned way in the community, and constantly help community residents to improve their ability of self-medication, so as to achieve reasonable, safe and effective drug use gradually.

4.3 The Relationship between Community Population with Different Education Level and the Knowledge of Cold after Intervention

Survey participants more than 60, 402 people, accounted for over 50% of the respondents, 51 ~ 60, 262 people, accounting for 32.8%, only 140 people under the age of 50, accounted for 17.5%, the main team on weekdays and pharmacology in the community, more young people go to work, mostly in the old people in the community, the residents of the college degree and above mainly concentrated age 50 years old the following the crowd.This survey shows that the education level is the basic factor that affects the common cold cognition and coping measures.People with higher education tend to be able to make correct judgments on the causes, characteristics, symptoms and medication principles of the common cold, which may be related to their strong ability to accept new knowledge and pay more attention to their own health conditions, while older people have weaker understanding and acceptance ability.This requires the speaker to minimize professional terms when giving lectures to the community residents, the content should be easy to understand, the language should be vivid, the speed and rhythm should be slow, and the “entry point” should be established to take the opportunity to interact. Each lecture should not be too long, which can be controlled within 30 ~ 40 minutes.It is worth noting that the PPT font size and line spacing should be appropriately increased, and each page should not be too much text, which can improve the learning effect.

5. Conclusion

The transformation and development of local undergraduate colleges and universities should not only make significant changes in personnel training objectives, but also make corresponding changes in scientific research and social service.As a “double-qualified” pharmacology teacher who is responsible for bridge courses of various specialties in medical colleges and universities, in the course of long-term pharmacology teaching, he has a systematic understanding of the development of medicine and pharmacy, the function, application, adverse reactions and matters needing attention for drug use, and has the ability to publicize the knowledge of rational drug use to the community residents.It can not only meet the needs of community residents for drug knowledge, correct medication mistakes and improve medication safety, but also has great significance in improving the public's physical quality, safeguarding the health of citizens and “implementing the

strategy of healthy China", which is worthy of further promotion.

The limitation of the survey by the lecture activity area, participation is not ideal, will be community based on the actual local conditions make corresponding adjustment Whole, such as according to the need to increase the number, apply for establishing WeChat pharmaceutical care [11] public platform, to the community residents to provide updated pharmaceutical information and more intuitive, various forms of medication guide.

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