

Effect of Whole Media Health Education on the Compliance of External Drug Treatment in Patients with Psoriasis Outpatients

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Abstract: Drug compliance is defined clinically as the degree to which the patient's drug behavior is consistent with clinical treatment and health guidance. Good drug compliance is not only an important factor in rational drug use, but also has an important impact on the clinical efficacy of drugs and the evaluation and decision of clinical drugs. With the continuous development of society and the increasing pressure on people's lives, the coexistence of various diseases has become more common. Different clinical treatment options, drug types, patient age, education level, psychological quality, physical condition, and medical and health knowledge may have an impact on drug compliance, which may affect clinical treatment. Psoriasis is commonly known as psoriasis. To investigate the effects of overall media health education on local drug compliance, health knowledge, compliance, and quality of life in patients with psoriasis, 138 psoriasis patients admitted to the dermatology department over the past two years were selected. According to different treatment methods, they were divided into experimental group (health education group) and regular group (oral education group) to compare the educational effects of the two groups. The experiment proved that after the health education, the health knowledge awareness rate of the experimental group was significantly higher than that of the conventional group. The behavioral rate of the experimental group was significantly higher than that of the conventional group. The DLQI score of the experimental group was significantly lower than that before and after the education. It can be seen that the whole-course health education of patients with psoriasis is of great significance for improving patients' understanding of diseases and compliance with drugs for external use. Health education helps promote patient compliance, adhere to medical practices and improve the quality of life of patients.

1. Introduction

The shift in health care patterns and the renewal of health concepts [1] have led to a healthy

development of care from single disease care to comprehensive treatment, prevention, rehabilitation and diversified care models. All-media education is the most intuitive and powerful support for information processing, communication and feedback. This is a modern and effective method of education. With the aging of the population and the diversified development of social culture and language exchange, as a science, how to successfully absorb modern all-media education means, break through the traditional dictation, achieve dynamic and intuitive, and enhance the interest and promotion of patients? Learning outcomes are a challenge and opportunity for hospital care managers. The cognitive theory [2] of all-media education shows that people can better understand the information stimuli associated with text and pictures, rather than simple words. This phenomenon is known as the "all-media effect." The Medical Institutions Evaluation Committee (JCAHO) clearly states that patient health education standards should have the following meanings: (1) Easy to read and understand the content; (2) Easy to access materials; (3) Fully consider the impact of language differences, and have the ability to patient health education. Standardized health education content must provide detailed information about disease progression, medications, pain management, self-care needs, risk factors, and care options. With the aging of the population and the diversification of social culture and language, a full-media health education program as a scientific tool has emerged as the times require and is widely used in clinical practice. The design features of the all-media health education program include: 1) All media collect video, audio, pictures and some animations or games to convey information to patients and use voice-overs to enhance the communication capabilities of text templates. The combination of voiceover and blue text is important to help patients with low literacy understand knowledge. 2) The content of health education focuses on the content of patients' needs, fully considers the readability of the text blueprint, and extensively collects the opinions and opinions of multidisciplinary experts such as psychologists, educators and applicable patient representatives, so as to make it a kind of New health education. Interactive user interface design [3] and flexible operational diagrams enable patients to actively participate in the learning process; software and hardware editing to meet the patient's physical, visual or hearing impairment needs; a wide range of learning environments, including doctors, hospitals, schools and clinics, Ward and busy waiting room. 3. Provide self-service to patients. The all-media health education program can be repeated multiple times by patients or family members, and repeated input can enhance the learning process. The application effect is manifested in the following aspects: (1) Objective indicators and economic benefits; (2) Patient satisfaction; (3) Patient health status indicators. Foreign research results in this field are inconsistent. In all media health education, there is no statistically significant difference in the improvement of patients' health status indicators, which may be affected by limited research time. Many studies have shown that they can improve patient self-efficacy.

At present, the main drugs for clinical treatment of skin diseases, especially for external use, account for about 40% of the total amount of therapeutic drugs. Topical drugs are an important means of treating psoriasis. In 2009, the American Academy of Dermatology (AAD) [4] issued guidelines for the treatment of topical psoriasis [5-6], indicating that 80% of patients with psoriasis are mild to moderate. Topical medication can control the disease and is highly safe. According to the study, drug compliance [7] due to various factors and non-compliance with medical recommendations [8], drug description and even drug abuse are important factors affecting clinical treatment and disease outcomes. Studies have shown that there are many factors that influence patient compliance. Age, cultural differences, lack of understanding of the disease, fear of prognosis and adverse reactions, and drug combinations are all related to patient non-compliance. Lack of knowledge, various drugs and fear of adverse drug reactions are the main factors leading to poor compliance, which can be summarized as follows. (1) Patient factor. Older patients often forget to take drugs because of lack of understanding and memory, and the economy is also an important

factor in compliance. Often, patients can't stay on drugs for long periods of time because they can't afford them. (2) A wide variety of drugs, complex operations. Psoriasis is a chronic inflammatory skin disease [9] with a long course and easy recurrence. Due to the complexity of the treatment, the doctor's advice is not easy. Unreasonable use of drugs can also affect the efficacy of the drug and lead to the use of the drug. (3) Lack of understanding of the disease. Most people with psoriasis know very little about their disease. They think their condition is under control. If skin damage is reduced, they may stop taking the drug or follow the doctor's advice and eventually things will get worse. (4) Adverse drug reactions. In addition to emollients, most topical drugs used to treat psoriasis are hormonal drugs [10]. Patients worry that long-term use of hormones can lead to skin infections, skin atrophy, telangiectasia, hyperpigmentation and other adverse reactions.

In this study, the control and observation groups were compared to verify the impact of media-wide health education on local drug compliance in patients with psoriasis. The control group only received general health education on diet, exercise, rest and sleep, and these educations were not conducted on a regular basis. The observation group used standard health education methods. The standard health education content is as follows: (1) Introduce disease knowledge and let patients understand the nature and characteristics of psoriasis. (2) Introduce drug knowledge to let patients understand the drugs, causes and side effects. (3) Diet guidance, let patients know what to pay attention to diet. (4) Guide patients to understand which habits are not suitable for disease treatment. (5) Discharge guidance. (6) Patient responsibility introduction. The educational goal is to provide patients with a long-term and difficult treatment for psoriasis. Inform patients about current disease goals to reduce symptoms and control progression. Understand the potential side effects. Learn about psoriasis. Encourage self-management, such as diet control, exercise, weight loss and smoking cessation.

2. The Basic Theory of the Treatment of External Medication for Psoriasis Outpatients Affected by All-Media Health Education

2.1. The Concept of All-Media Health Education

Health education uses information dissemination and behavioral interventions to help patients establish correct health concepts, correct bad behaviors, and help patients better control disease. Health education in China only does random oral education and routine discharge guidance. Often adopting a single infusion care provider, passively accepting patients, lacking a personalized, humanized and interactive form. As patients become more aware of their health, more and more people learn from a variety of sources. Currently, common methods of clinical health education include organizing interest classes, sending data sheets to patients, and establishing organizations for patient communication. Literature studies have shown that the above methods have a good intervention effect on patient health education. Some scholars' studies improved the quality of life of patients after three months of health education; sending text messages and following up by phone showed a significant drop in PASI scores. Although health education has been widely used, there are still some problems. First, patients lack initiative and most patients are passively treated. In order to improve the patient's learning awareness, health education is needed. Second, medical staff pay attention to the treatment of diseases and ignore the importance of psychological care. Third, there is a lack of large-scale, multicenter research on the impact of health education on psoriasis. As health education becomes more and more important in the treatment process, we believe that through continuous exploration, researchers will bring a more comprehensive health education knowledge system. The proportion of media education for patients is shown in Figure 1.

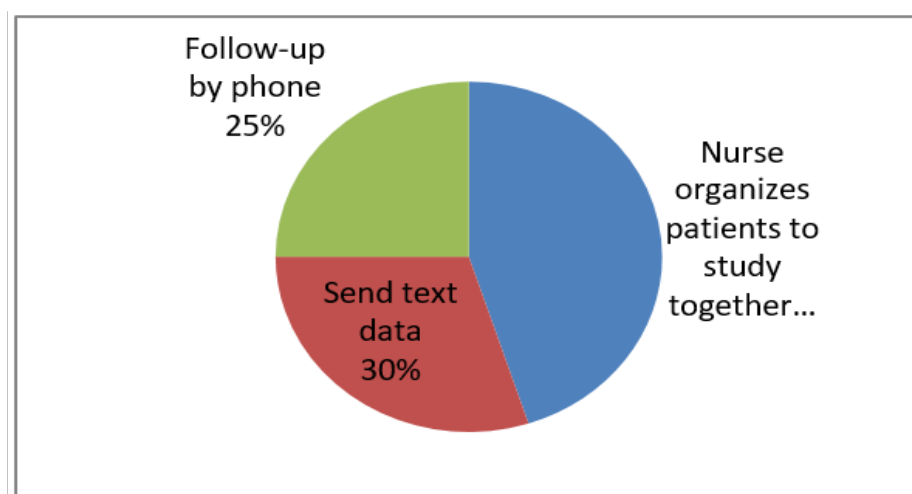


Figure 1. Comparison of educational methods for 138 patients

2.2. Advantages and Limitations of Regular Health Education Methods

In the past, medical staff only taught knowledge through face-to-face tasks. With the continuous improvement of the health education system, various educational methods provide people with choices. In some hospital outpatient waiting areas, CCTV discs with disease knowledge and new treatment technologies are played during normal working hours. Some hospitals regularly hold lectures and organize patient communication meetings, which are widely used in clinical practice. Each method has its own advantages and limitations. By communicating with different patients, outpatient nurses can clearly understand the situation of different patients and guide patients' problems in a targeted manner. The bulletin board was created to consider a large number of patients without in-depth reports, and patients can easily grasp the basic knowledge of disease prevention and care. Through the knowledge of television scrolling, abstract knowledge can be easily understood, especially for elderly patients, but outpatients have short hospital stays, high mobility, and lack of systematic education. Regular teaching, inviting experienced doctors to consult the hospital to meet the needs of patients with different types of diseases. However, due to time constraints, the rest of the patients cannot hear the scene, the patient communication meeting can mobilize the patient's enthusiasm, expand their circle of friends, but lack professional guidance. With the rapid rise of the Internet, functional technologies such as WeChat, Weibo, and QQ continue to innovate, and the application of new media technologies in clinical health education has become a new trend.

2.3. Psoriasis Related Theory

Psoriasis, also known as psoriasis, is a chronic skin disease that cannot be cured at all ages. Treatments include topical medications, physical therapy, systemic therapy and Chinese medicine. The purpose of treatment is: (1) Control the disease and delay its progression to the whole body; (2) Reduce the symptoms of erythema, scaly and local plaque thickening; (3) Avoid recurrence; (4) Avoid side effects; (5) Improve the quality of life of patients. Standardized drugs can quickly control disease and reduce recurrence. Poor lifestyle habits such as alcohol, high-fat diets, use of stimulants and high-dose medications, overwork, colds and trauma can trigger or exacerbate the disease. The main clinical manifestations are erythema infiltration, desquamation, itching, long course of disease, and easy recurrence. It not only affects the patient's physical and mental health, but also brings a lot of inconvenience to the patient's life. From the clinical treatment of psoriasis,

the ability of patients to seek medical care in a timely manner and the ability of medical institutions to treat patients for the first time have an important impact on the patient's therapeutic effect and long-term prognosis. Most psoriasis has no obvious symptoms at an early stage, and the treatment period is long, and it is not uncommon to have a delayed diagnosis or an unreasonable medication. After implementing the "new medical reform" policy in China, the stratified diagnosis and treatment system and the two-way referral system have played a positive role in guiding patients' reasonable medical behavior. However, from the behavioral status and medical procedures of Chinese residents reported in the sample of this study, patients are free to choose and change medical institutions. Primary medical institutions (mainly township health centers or urban community health service centers) are expected to provide reasonable medical care for patients with psoriasis and other special diseases as "gatekeepers" for graded diagnosis and treatment systems. Although there are no dermatologists and experts in China's township/community medical institutions, if the training of grassroots doctors can be strengthened, preliminary identification can be carried out, and patients can be referred to specialist hospitals in time. The effect of this can greatly reduce the infrequent medical treatment. The incidence of the patient. Studies have shown that the cause of psoriasis is closely related to the psychological factors of patients, so the care of patients with psoriasis will be a breakthrough in mental health education. This study conducted a personalized health education for patients with psoriasis and achieved certain clinical results.

2.4. The Concept and Significance of Drug Dependence

Dependence refers to the extent to which patients make recommendations about changes in medications, diets, and lifestyles provided by doctors. Studies have shown that 40% to 60% of patients with psoriasis have non-compliance. Health education is an educational activity and process that helps individuals and groups acquire health knowledge, establish health concepts, use resources reasonably, and adopt healthy behaviors and lifestyles through information dissemination and behavioral interventions. The goal is to prevent disease, promote health and improve risk factors for quality of life. Psoriasis, as a chronic condition, may be related to the life of the patient. Therefore, standardized patient health education and good drug adherence and lifestyle habits are important to reduce disease risk and delay disease progression. In this study, after standardized health education, the oral medication adherence and local drug compliance of the observation group were significantly higher than the control group. In the observation group, standard health education is given to patients with psoriasis to enable patients and their families to participate in treatment. Promote them to change bad habits and effectively improve patient compliance with treatment plans and living habits. There were significant differences in oral medications, topical medications, and lifestyle habits between the two groups. We believe that standardized health education can effectively improve the drug compliance and living habits of patients with psoriasis, which is worthy of clinical promotion. The comparison of drug compliance, living habits and effects between the two groups is shown in Table 1.

Table 1. Comparison of two groups of drug compliance, living habits and effects

Group	n/cas e	Oral medication		External medication		Living habit	
		Valid number/example	Efficient/ %	Valid number/example	Efficient/ %	Valid number/example	Efficient /%
Observation group	66	64	96.97	62	93.94	65	98.48
Control group	72	45	62.5	44	61.11	60	83.33

3. Status of Compliance with Topical Medications in Patients with Psoriasis Outpatients under the Influence of All-Media Health Education

3.1. The Need for Health Education for Patients with Psoriasis

For patients, the purpose of health education is not only to instill knowledge, but also to help patients establish good patterns of healthy behavior. Many psoriasis patients, their relatives and friends know little about psoriasis and are unable to cope with the stress caused by recurrent diseases and adverse life events. It is not conducive to the control of psoriasis, which seriously affects the work and life of patients. Studies have shown that more than 20% of patients with psoriasis have tried suicide, which is related to the early onset of psoriasis. Good health behavior patterns can help patients understand psoriasis, improve compliance, and actively adjust lifestyle and mental state. Actively seek social support, actively participate in disease control, seek social support, and better achieve disease control. The goal of health education should not only be limited to the patients themselves, but should also be limited to their families. Targeted dissemination of relevant disease knowledge is an important part of health education; patients with poor understanding, such as younger or less educated patients, should emphasize language understanding; patients with deeper understanding can supplement the disease. A deeper understanding of the latest treatment advances, such as promoting the non-infectiousness of family members of psoriasis patients, emphasizing the importance of family members treating psychiatric illnesses and establishing a good social support system for patients.

3.2. Health Education Implementers of Patients with Psoriasis

The implementers of health education mainly include doctors, nurses, nutritionists and other health educators. Doctors are the main source of patient health knowledge, and clinical nurses are the main performers of health education. Some scholars have found that in one-on-one education of 120 hospitalized psoriasis patients, responsible nurses can significantly improve patient satisfaction, and the recurrence rate of the disease is also significantly reduced. In addition to doctors and nurses, dietitians, rehabilitation teachers, social volunteers and medical technicians also play the role of health educators. It is particularly important to emphasize that in family life, the coordination of the patient's family plays a vital and positive impact.

3.3. Contents of Health Education for Patients with Psoriasis

The contents of health education mainly include psychological education, disease knowledge education, drug and compliance education, diet guidance and family health education guidance. The long-term process of psychosomatic diseases is usually caused by genetic background and psychological, social and environmental factors that will lead to autonomous regulation and induction or aggravation of endocrine and immune dysfunction. Psychological factors play an important role in the induction, deterioration, remission and treatment of psoriasis. Recurrent psoriasis, the patient's persistent characteristics lose confidence in treatment, and then interrupt treatment, causing psychological reactions such as anxiety and irritability, aggravating the condition. The clinical features of psoriasis itself significantly affect the patient's external image, making patients feel inferior and do not want to go to public places. It seriously affects the social life of patients and even increases suicide rate and corresponding mortality. Some researchers used the 90 Symptoms List (SCL-90), the Coping Strategy List (CCIS), and the Disease Awareness Questionnaire (IPQ-R) to better assess the patient's mental state. Combined with the PASI score, it provides a theoretical basis for the psychological education of patients with psoriasis. Some

scholars organize patients to learn disease experience under the guidance of nurses; introduce psoriasis knowledge and materials to patients through text or listening materials, provide relaxation for patients; telephone consultation and follow-up. Through the implementation of the above three aspects, to help patients correctly understand the occurrence and development of the disease, the PASI score of the intervention group decreased, reflecting that the psychological education promotes a virtuous cycle of the overall condition of the patient. In the psychological care of patients with psoriasis, the following four important treatments should be taken: acceptance, planning, positive response and positive reinterpretation. Acceptance means that the patient needs to recognize the existence of the disease and accept its persistence. Through planning, patients can better cope with disease and stress. A positive response requires patients to take positive steps to deal with the disease and stress, thereby transferring or even eliminating it. From a more positive perspective, actively reinterpreting patients facing disease or even progress to keep them in top shape. In addition, it provides a platform for patients with psoriasis, providing patients with great social support through mutual support between patients, reducing the patient's loneliness, fear, anxiety and even despair. Compliance refers to the extent to which a doctor recommends a patient's medication, diet, and lifestyle. Patient compliance affects the prognosis of the disease to some extent. Some researchers believe that male patients have less compliance with psoriasis than female patients. Female patients have a large gap in treatment and preventive care, and medical staff have different guidance at work. Psoriasis is a chronic recurrent disease. Patients should be instructed to eat a scientific diet and consume sufficient amounts of water, protein, vitamins and trace elements. First of all, patients should not eat spicy food, because spicy food will stimulate the body, make the skin vasodilatation, congestion, induce or aggravate psoriasis. Second, eat less beef, lamb, etc. In addition, patients with psoriasis should avoid smoking and quit smoking because tobacco and alcohol can induce and aggravate psoriasis. It is worth noting that reasonable avoidance of diet does not mean blind taboos, thus avoiding severe malnutrition. Psoriasis has a long course of disease and is prone to recurrence, which brings great psychological pressure to patients. An important part of health education is to understand the social and family background of the patient and to inform the patient that the disease is not an infectious disease. Discrimination will aggravate the patient's inferiority complex, is not conducive to treatment, and value the role of relatives in order to win their support. Guide patients to divert attention, distract attention, listen to music, exercise properly, relieve psychological stress, and make patients in a positive, optimistic, cooperative psychological state, which is conducive to the recovery of the disease. A total of 138 patients with psoriasis were enrolled in the study, 69 in the experimental group and 69 in the control group. A specific comparison between the PASI score and the quality of life of the two groups is shown in Figure 2.

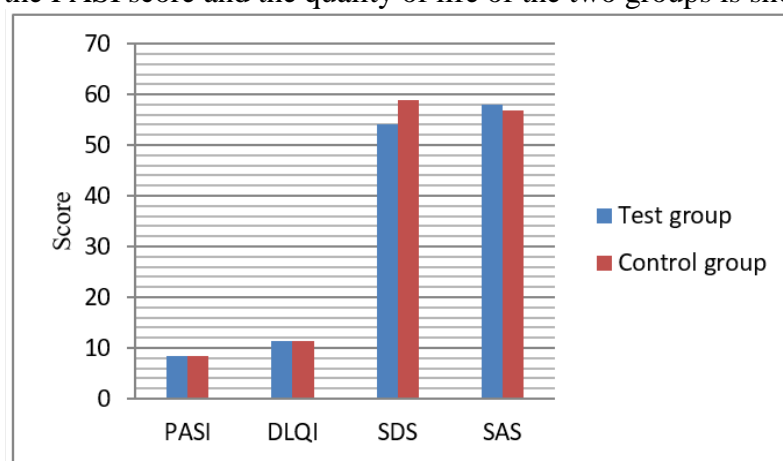


Figure 2. Patient data chart

3.4. Implementation of Health Education for Patients with Psoriasis

The implementation of health education for patients with psoriasis mainly includes inpatient health education and outpatient health education. Good doctor-patient communication is the basis for effective treatment of psoriasis, and trust and connection between doctors and patients can help improve patient compliance and disease. Studies have shown that the whole process health education model of patients with psoriasis from hospital to discharge, through the interpretation of the distribution of educational prescriptions, the establishment of patient QQ group and daily management, multimedia lectures and other health results in psoriasis patients have achieved satisfactory results. Some scholars use the clinical pathway to educate patients with psoriasis and develop a health education pathway based on the health needs of patients with psoriasis. In order to reflect health education, nurses can predict the content of health education to ensure that the quality of health education is worth learning. System health education for 138 outpatients, including personal guidance, special lecture organization, and patient rehabilitation experience. It changes the patient's unhealthy lifestyle and enables patients and their families to achieve emotional health. Through psychological guidance and stability, improve the self-care ability of patients with psoriasis, effectively reduce the recurrence rate of psoriasis and improve the quality of life.

3.5. Evaluation of Health Education for Patients with Psoriasis

The evaluation of health education for patients with psoriasis mainly includes three aspects: biological indicators, quality of life, and understanding of our business level. As a commonly used evaluation index, biological indicators can be used as an important reference for judging diseases and evaluating efficacy. The health indicators of 116 patients with psoriasis were studied, such as blood parameters (CHO), triglycerides (TG), hematocrit (HCT), ESR, ESR equation K values, and interventions were found. The blood index of the group was significantly different before and after treatment. In addition, the PASI score can be used as an indicator of the severity of psoriasis. As a new health indicator, quality of life (QOL) can be measured by measuring clinical symptoms, signs and laboratory indicators compared to traditional methods. A more comprehensive assessment of the physical, psychological and social aspects of the patient or family members. At present, the relationship between disease, mental state and quality of life is studied at home and abroad using psoriasis range and severity index (PASI), psoriasis patients' shame experience questionnaire (FSQ), and skin disease quality of life index (DLQI). The internationally recognized Dermatological Quality of Life Index (DLQI) and the Quality of Life Scale (WHOQOL-BREF) and the Concise Health Questionnaire (SF-36) are commonly used in adult psoriasis quality of life assessment tools. The Family Health Quality Index (FDLQI) questionnaire and the Dermatology Family Impact Questionnaire were used for children with psoriasis. Based on this theoretical knowledge, this paper uses self-designed knowledge questionnaire and psoriasis behavior questionnaire to evaluate the changes before and after health education, and evaluate the effect of health education. According to the DLQI questionnaire, sleep and diet are increased to better understand the behavioral changes of patients before and after health education. Using the likert5 method (very unclear, unknown, uncertain, known, very clear) in the order of 1 to 5 points, the higher the score, the higher the cognitive level, and the more comprehensive the assessment of the cognitive level of psoriasis patients. The DLQI scores of 1 month, 2 months, and 3 months were analyzed by repeated measures analysis of variance. The result is shown in Figure 3.

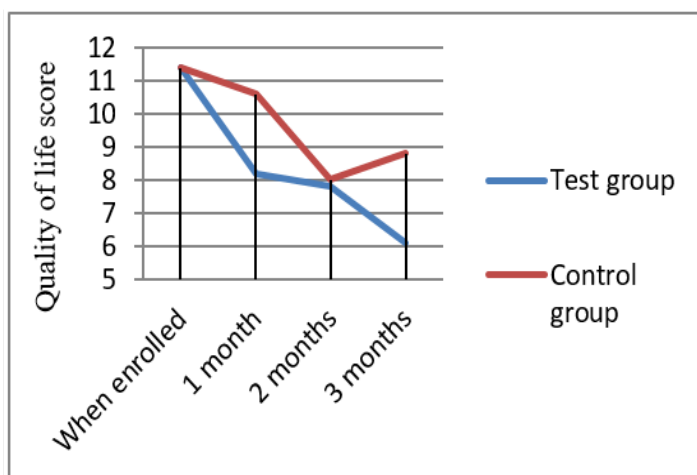


Figure 3. DLQI score line chart of two groups of patients

4. Analysis of Issues Related to the Compliance of Topical Medications in Patients with Psoriasis Outpatients under the Influence of All-Media Health Education

Studies have shown that many patients with psoriasis still have some vague understanding of psoriasis, such as triggering factors, controllability, progression and outcome. Most patients are passively treated and need to be better informed and able to respond positively to the disease, and education needs to be further popularized. There are three main problems with health education for patients with psoriasis. First of all, the health education content of medical staff is not comprehensive enough. They focus on biological therapy rather than a comprehensive biopsychosocial medical model, especially psychology. Although patients and their families receive comprehensive education, health education is not effective. Second, medical staff did not make full use of the convenience of daily outpatient and ward clinical work to establish a health education and related communication platform. Third, health education is not enough to assess the impact of the disease. The assessment of health education outcomes for psoriasis patients lacks a multicenter, large-scale study. The measurement methods used lack uniform standards and most studies in China are limited. The proportion of the main problems in the health education of patients with psoriasis is shown in Figure 4.

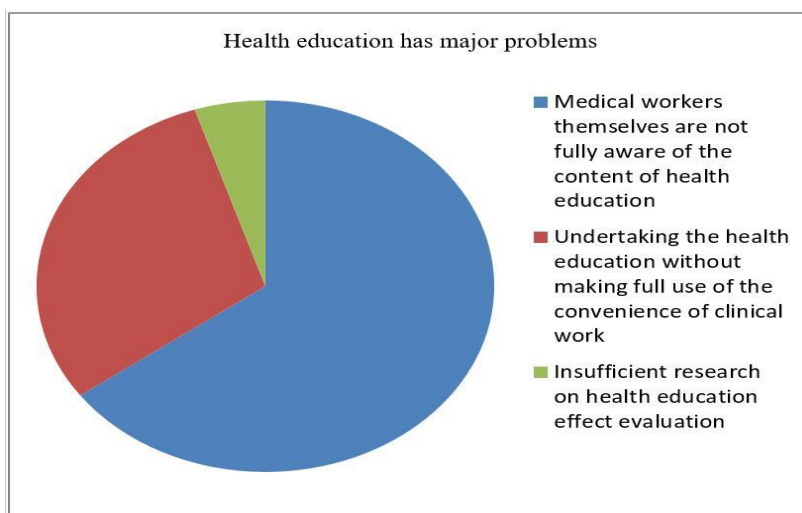


Figure 4. The current problematic proportion of health education in patients with psoriasis

4.1. Continuous Care Mode Single

At present, most hospitals in China use telephone follow-up and home visits as the main means of continuous care. With the rapid development of continuous care in China, when patients follow up the above methods, patients have high self-vigilance or the quality of continuous care service is difficult to control, the follow-up rate is not easy. Therefore, the multidisciplinary teamwork model led by foreign nurses is worth learning. In particular, pharmacists are encouraged to participate in understanding the drug management needs of patients before discharge, and to develop a personalized drug continuous care service plan to ensure that patients have targeted guidance after discharge to ensure drug safety. At the same time, China's lack of continuous care for teamwork cannot be carried out in an in-depth and effective manner. Therefore, it is particularly important to further improve the relevant management system and promote the comprehensive development of continuous care.

4.2. Lack of Training for Professional Nursing Staff

At present, the implementation of continuing nursing tasks in China mainly relies on nurses, but due to limited personnel and heavy workload, it is difficult to guarantee the quality of care. At the same time, there is a lack of training venues and professionals to provide ongoing care. Therefore, specialized agencies can be established to provide relevant education and training for in-service nurses, interns and social workers. Senior physicians are responsible for developing a continuous care plan for patients after discharge, strictly implementing the plan and putting it into practice. From the content point of view, it is expected to achieve satisfactory results.

4.3. Lack of Patient Family Education Intervention

At present, the extended care implemented by many families is mainly limited to the patients themselves, ignoring the importance of family caregivers. In fact, the patient's family is also an important goal of continuous care intervention. In the nursing work, the enthusiasm of family members should be mobilized to guide and give patients psychological comfort and emotional support. The quality of life of patients with chronic heart failure through continuous care suggests that patients who receive family support and understanding are better at adhering to sexual behavior; patients receiving family emotional support are also more likely to improve self-care and reduce quality of life. Therefore, nursing staff should actively seek the support and cooperation of home care workers to help patients recover as soon as possible.

4.4. Lack of Certain Social Support

To date, few patients with psoriasis have been discharged from the hospital to the community health service center for follow-up work. In addition, severe skin damage in patients with psoriasis affects the appearance of the patient and is subject to a certain degree of discrimination in society. Many patients have varying degrees of anxiety and depression, affecting treatment adherence and effectiveness. Therefore, it is especially important to establish a partnership with a community health service center to help patients with follow-up and medication guidance. At the same time, with the help of network tools, psoriasis patients get more care and support. Through online communication, regular lectures are held to help patients recover from mutual supervision and communication, effectively alleviating the negative emotions of patients.

5. Conclusions

Drug adherence is one of the important aspects of compliance research. Good drug compliance can improve drug efficacy and promote disease outcomes. Some data show that poor drug compliance in patients with psoriasis is an important cause of disease recurrence and poor disease control. Studies have shown that age, education, medication knowledge, fear of adverse reactions, and patient non-compliance are relevant, and multiple drug combinations and fear of adverse events are independent risk factors for patient non-compliance. It can be summarized as the following aspects: (1) Patient's own factors. Some elderly patients often forget to take medication because of lack of understanding and memory. Economic conditions are also an important factor affecting compliance. Sometimes it is beyond the economic acceptance, which may prevent patients from using the drug for a long time. (2) There are many kinds of complicated drugs for surgery. Psoriasis is a chronic inflammatory disease with a long course and repeated attacks. Because the treatment plan is too complicated, the doctor's advice is not easy to implement, and the unreasonable use of topical drugs will affect the treatment effect and cause adverse consequences. It can cause a lot of drug waste. (3) The level of education is low. Most of the less educated psoriasis patients know very little about this disease. They believe that the disease is controlled, and the symptoms of skin lesions can basically stop or stop after the symptoms disappear, making the disease recurring even more serious. (4) Adverse drug reactions. In the treatment of topical drugs for psoriasis, most of them are hormonal drugs except for moisturizers. Such as skin infections, skin atrophy and telangiectasia, folliculitis, pigmentation, etc. self-reduction or quitting.

Timely disease health education is an important measure to improve patient self-efficacy and medication compliance. "Knowledge and trust" is the application of cognitive theory and motivation theory in education. In recent years, through the intervention of patient cognition, attitude and behavior, it has been widely used in the health education of patients with chronic diseases such as hypertension, diabetes and viral hepatitis, and has achieved certain expected results. The "Know My Way" model is used to educate patients with psoriasis so that patients can increase their understanding of the disease. Understand the mechanism of drug action, establish a good belief in the health of patients, and actively face effective treatment methods. Among them, drug guidance also includes understanding the importance of topical drugs in the treatment of dermatological diseases, with particular emphasis on the need to follow the doctor's advice, timely, adequate and reasonable use of topical drugs to eliminate adverse reactions. In view of the various topical drugs available in dermatology, the methods of use vary, including separate drugs, combinations of two or more, replacement therapies and bandages. Medical staff should indicate the amount, duration, duration, adverse effects and precautions of the drug, as well as precautions for using an oily pen on topical ointments or lotions. These interventions significantly improved drug compliance. In addition, after the patient joins the WeChat group, they receive daily drug reminders from medical staff, prompting the patient to take the drug at a fixed time, formulating rules to prevent forgetting, and sending text messages to remind patients to use drugs and drug use methods to be more effective. Improve the compliance of patients with external drugs.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

References

- [1] Regier, Y., O'Rourke, F., & Kempf, V. A. (2016) "Bartonella Spp.-a Chance to Establish One Health Concepts in Veterinary and Human Medicine", *Parasites & Vectors*, 9(1), pp. 261. DOI: 10.1186/s13071-016-1604-4
- [2] El Haj, M., Raffard, S., & Gady-Nargeot, M. C. (2016) "Destination Memory and Cognitive Theory of Mind in Normal Ageing", *Memory*, 24(4), pp. 526-534.
- [3] Dudley, J. J., & Kristensson, P. O. (2018) "A Review of User Interface Design for Interactive Machine Learning", *ACM Transactions on Interactive Intelligent Systems (TiiS)*, 8(2), pp. 8. DOI: 10.1145/3185517
- [4] Secrest, A. M., Asgari, M. M., Kourosch, A. S., Barbieri, J. S., & Albrecht, J. (2017) "Prior Authorizations for Dermatologic Medications: An American Academy of Dermatology Survey of US Dermatology Providers and Staff", *Journal of the American Academy of Dermatology*, 77(4), pp. 784-786.
- [5] Vender, R., Gooderham, M. J., Guenther, L. C., Kyritsis, D., Rao, J., Kowalczyk, A., & Ashkenas, J. (2018) "Canadian Patients' Preferences in Topical Psoriasis Care: Insights from the PROPEL Surveys", *Journal of Cutaneous Medicine and Surgery*, 22(5), pp. 464-471.
- [6] Iversen, L., & Jakobsen, H. B. (2016) "Patient Preferences for Topical Psoriasis Treatments are Diverse and Difficult to Predict", *Dermatology and Therapy*, 6(2), pp. 273-285. DOI: 10.1007/s13555-016-0119-4
- [7] Cheng, K., Yang, X. Q., Zhang, X. S., Chen, J., An, J., Song, Y. Y. & Song, X. L. (2018) "High - Security Nanocluster for Switching Photodynamic Combining Photothermal and Acid - Induced Drug Compliance Therapy Guided by Multimodal Active - Targeting Imaging ", *Advanced Functional Materials*, 28(36), pp. 1803118.
- [8] Iyengar, A., Lewin, S., & Lantos, J. D. (2018) "Considering Family Resources When Making Medical Recommendations", *Pediatrics*, 141(1), pp. e20171198.
- [9] Marcinkiewicz, M., & Majewski, S. (2016) "The Role of Antimicrobial Peptides in Chronic Inflammatory Skin Diseases", *Advances in Dermatology and Allergology/Postępy Dermatologii i Alergologii*, 33(1), pp. 6.
- [10] Buggio, L., Lazzari, C., Monti, E., Barbara, G., Berlanda, N., & Vercellini, P. (2017) "“Per Vaginam” Topical Use of Hormonal Drugs in Women with Symptomatic Deep Endometriosis: A Narrative Literature Review", *Archives of Gynecology and Obstetrics*, 296(3), pp. 435-444.