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Research Article

Evaluation of the Effect of Multidisciplinary Integrated Extension Service on Rehabilitation of Children with Kawasaki Disease -

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ABSTRACT

Objective: To explore the application effect of medical, technical and nursing multidisciplinary extension services in the rehabilitation of children with Kawasaki disease after discharge.

Methods: A non-concurrent control study was conducted. The observation group consisted of 40 children with Kawasaki disease who were discharged from June 2017 to February 2018. The control group received 40 children with Kawasaki disease who were discharged from January 2017 to October 2017. Phone follow-up, and the observation group used medical, technical, and multi-disciplinary integrated extension care services. The follow-up satisfaction, disease knowledge awareness rate, medication compliance, and coronary artery damage rate were compared between the two groups.

Results: There were statistically significant differences in follow-up satisfaction, disease knowledge awareness, medication compliance, and coronary artery lesion rate between the two groups ($p < 0.01$).

Conclusion: After the discharge of Kawasaki disease, the implementation of multidisciplinary extension of medical, technical and nursing services can effectively improve follow-up satisfaction, disease knowledge awareness, medication compliance, and reduce coronary artery damage rate.

Keywords: Multidisciplinary; Kawasaki disease; Extended care; Coronary artery damage

INTRODUCTION

Kawasaki Disease (KD), also known as skin-mucosal lymph node syndrome, is a common disease that seriously affects the physical and mental growth of children, and is the main cause of acquired heart disease in children [1]. In the past 10 years, Kawasaki disease has been increasing year by year in terms of coronary artery disease, coronary artery tumor and thrombosis, which has caused various degrees of harm to children's physical and mental health and family. Coronary artery disease usually occurs in the course of 2 to 4 weeks, but it can also occur in the recovery period of the disease [2]. Compliance with doctors can avoid risk factors and guide patients' behavior correctly, thereby reducing the complications of the disease and playing an important role in the treatment of the disease, therefore, long-term extended care services for discharged patients and education is particularly important in the treatment of patients [3,4]. In 2018, our medical and nursing staff combined with B-ultrasound technicians conducted a study on joint extended care services for children discharged from Kawasaki disease, which improved the compliance of family members and the satisfaction of family members, and reduced the incidence of coronary artery damage. The research results are reported as follows.

MATERIALS AND METHODS

General information

A non-simultaneous controlled study was conducted. The observation group was for children with Kawasaki disease hospitalized in our hospital from June 2017 to February 2018. A total of 40 medical records were collected, 18 females and 22 males, aged 7 months to 5 years. The average age was (2.71) years; the onset time was 2-6 days from the visit, with an average of (3.58) days; the course of disease was 4-15 days, with an average of (8.62) days. In the control group, children with Kawasaki disease who were hospitalized in our department from January 2017 to May 2017 were selected. A total of 40 medical records were collected, 19 females and 21 males, aged 8 months to 5 years old, average (2.65) years old; the onset time is 1 to 6 days from the visit, average (3.35) days; the course of disease is 3 to 14 days, average (8.34) days. After comparing the general data of the two groups, the difference was not statistically significant ($p > 0.05$) and was comparable.

Inclusion criteria: (1). The children in both groups meet the diagnostic criteria for Kawasaki disease jointly formulated by the American Academy of Pediatrics and the Cardiology Society, (2).

The children who improved after a single treatment with high-dose immunoglobulin, (3). The two groups the main caregivers of the children are the parents of the children, and communication is barrier-free [5,6].

Exclusion criteria: (1). Children confirmed by cardiac colour Doppler with concurrent coronary artery damage, such as coronary artery dilatation or coronary aneurysm, (2). The family members of the main companions have poor understanding ability, (3). There are children with underlying diseases, such as hematopoietic system diseases, Liver and kidney dysfunction (4). Children who have not been transferred to the hospital halfway through continuous standardized treatment.

Methods

The two groups of patients were treated with immunoglobulin, aspirin, dipyridamole and antibiotics during hospitalization, and all improved after discharge. During the hospitalization period, the control group gave corresponding nursing measures, such as dietary care, fever care, medication and education, etc., according to the nursing routine of Kawasaki disease; at the time of discharge, they instructed family members to use anticoagulant drugs reasonably, observe the main points of the illness, and regularly visit the hospital Time; after discharge from the hospital, follow-up system is followed. Telephone follow-up is given five times a week, January, March, June, and year after discharge. On the basis of the control group, the observation group adopted a multi-channel and multi-modal integrated follow-up model of medical, technical and nursing disciplines: (1). Established the WeChat follow-up group and QQ communication group of the "Kawasaki disease home" (2). Created the "Healthy Road APP" platform for the doctor in charge, (3) and the B ultrasound technician created the B ultrasound reservation "through train". Staff construction under the organization of the head of the department, the head nurse, the doctor in charge, the nurse in charge of the bed, and the B-ultrasound technician will participate together [7]. Platform construction (1). "Kawasaki disease home" WeChat group and QQ group, the head nurse as the group owner, invites tube nurses and tube doctors to join the group, and the family members of the observation group according to personal convenience, when discharged, Through the missionary education of the nurse in bed, choose to join the WeChat group or QQ group, modify the name of the nickname of the child in the group and add the father or mother, so that the medical staff can check the identity. The head nurse arranges the medical and nursing staff in the group, implements the effective operation in the group, guarantees the timely sending



of outpatient shifts and answers questions to the family, and gives parents full health guidance and psychological support. Regularly arrange medical staff to produce missionary courseware. The content includes the importance of disease return visit, discharge medication guidance, routine return visit time, activities and the importance of disease. The content is rich, simple and easy to understand, and the text is well written. After review by the director and head nurse, push in the group, through communication with the parents in the group, timely detection of adverse drug reactions and unhealthy behaviors in daily life, and appointments for face-to-face examinations and examinations under special circumstances. (2). Create a "Healthy Road APP" for each doctor in the department. When the child is discharged from the hospital, the nurses guide them to scan the QR code of the supervising doctor's APP, add it to the tube bed doctor's "heart care room", and guide the family members to use it. Function, when it is inconvenient to communicate in the "Kawasaki disease home" group, you can communicate with the doctor one-on-one online to protect the privacy of children and their families. (3). Created a "through train" for appointment B ultrasound, and created a WeChat communication group together with medical, technical and nursing staff. Children who come to the hospital for consultation will be informed in advance in the "Kawasaki disease home" that the doctor will issue a cardiac B ultrasound appointment form and others Checklist, the medical staff communicates with the sonographer of B ultrasound, records the name of child and time of coming to hospital All can be completed, which further optimizes the child's treatment process, helps doctors adjust the treatment plan of the child in time according to the examination result, greatly saves the time of family billing, queuing, and waiting, and provides a better extension for the child service. Evaluation of effects Compare the disease knowledge awareness rate, medication compliance, satisfaction of family members of patients with the two groups of patients and the rate of late coronary artery injury. Satisfaction is surveyed using our hospital's satisfaction questionnaire; medication compliance and disease knowledge awareness rate are counted through a self-made questionnaire. The items include the accuracy of medication, adverse drug reactions, time of follow-up visits, disease observation points, health Guidance on 5 aspects, scoring by 5, 3, 1 scoring method, the higher the score, the better the mastery; coronary artery injury rate, through fixed cardiac ultrasound technicians and competent doctors to compare the children before and after cardiac ultrasound Statistics and results.

RESULTS

Comparison of children's satisfaction, disease knowledge awareness rate, medication compliance, coronary artery damage rate between the two groups (%).

DISCUSSION

Effectively improve the medication compliance and disease knowledge awareness of the family members of the children, and reduce the coronary artery damage rate. The most serious complication of children with Kawasaki disease is coronary artery disease, which mostly occurs in the course of 2 to 4 weeks, but can also occur during the recovery period of the disease, it should not be taken lightly. It requires continuous treatment after discharge, effective follow-up and continued regular inspections to track coronary artery changes for early detection, timely diagnosis and treatment, and prevention of missed diagnosis [8,9]. According to the regular telephone follow-

up, individual parents do not have enough knowledge of the disease, observe the child's appearance is good, there is a fluke mentality, cannot take the medicine on time, according to the amount, standardization, plus the trouble of B-ultrasound appointment, etc. The various types of non-compliance with the doctor, and the consequent increase in the rate of coronary artery damage. The multi-disciplinary follow-up model we created can effectively make up for items that cannot be met by regular telephone follow-up, regularly send relevant disease knowledge in the "Kawasaki disease home" group, and continuously strengthen parents' awareness of the disease and the importance of later review, Opened a green channel for examination appointments, provided better extended services for children, improved disease knowledge awareness and medication compliance, and reduced coronary artery damage rate [10,11].

Effectively improve the satisfaction of the family members of the patients. Most of the routine telephone follow-up time is during the daytime work. Many parents of the children cannot answer because of busy work, or the elderly can't express clearly about the child's medication after the answer. Answer, can only be passively waiting for the next follow-up or re-examination, using multi-disciplinary follow-up mode, 24-hour staff on duty to answer questions from family members at any time, can also push intuitive health guidance, provide a convenient and time-saving way to revisit, children The family members are in a proactive position and have problems at any time [12]. They can get an effective response at the first time, relieve all concerns of the family members, increase the trust of the family members of the children to the medical staff, and establish a harmonious and harmonious medical, nursing, The relationship between the patient and the child makes the family and the child feel from the heart that the medical staff attaches great importance and care to the child, and ultimately gets 100% satisfaction from the family and the child. To sum up, the integrated extended service model of medicine, technology and nursing in the follow-up of pediatric Kawasaki disease patients is better than a single telephone follow-up, which effectively improves the compliance behavior of family members of children and reduces Kawasaki disease The incidence of coronary artery damage in children improves the satisfaction of family members of patients and improves the effect of extended nursing services, which is worthy of popularization and application.

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