School nurses' knowledge, attitude, and ability of case management for caring children with acute lymphoblastic leukemia (ALL)

Shu Yu, RN PhD, National Yang-Ming University, Taiwan
Chih-Yun Hsieh, RN MS, National Yang-Ming University, Taiwan
Kang-Hsi Wu, MD, China Medical University Hospital and China Medical University, Taiwan
Pei-Fan Mu, RN PhD, National Yang-Ming University, Taiwan

Abstract (300 word limit)

The five-year survival rates of children with acute lymphoblastic leukemia (ALL) reveal significantly increasing trend in recent decades. For children with cancer, as a chronic disease, maintaining a normal lifestyle and positive adjustment are very vital. School nurses (SNs) as the role of health gatekeeper must have sufficient knowledge to understand clients' (children and their parents or caregiver) health care needs and then to develop a client-centered case management model. However there is lacking of studies regarding SNs' knowledge of caring children with ALL. The aim of this study was to examine school nurse's knowledge of caring children with ALL. A nationwide-based study was conducted with a randomly selected sample of 303 SNs using a structured questionnaire. Based on the findings, we found that there is an obvious room to improve SNs' knowledge (20.55±4.34, total score 31; an average overall correct answer rate of 66.3%). Among five dimensions of knowledge, the highest was noted for "treatment of ALL" (average mean = 0.70; SD=0.22), then was in "late effects in long-term survivors" (average mean = 0.67; SD=0.44); and the lowest score was in "care after treatment of ALL within two years" (average mean = 0.62; SD=0.22). The evidence-based results found that SNs have insufficient knowledge about caring of children with ALL as well as developing a case management of ALL in school. Thus, health care organizations and school administrators should pay more attention and support to SNs join in more continuing education about caring of and developing a case management model of children with ALL. To effectively empower SNs' knowledge and competence then to increase quality of health care and get healthier and better life for children with ALL. Our findings are also helpful for program development, policy making, future research, practice, as well as improving the quality of care and life for children with cancer (ALL).

Image

Table 1 School nureses' Knowledge, attitude, and ability of case management for children with acute lymphoblastic leukemia (ALL) (N=303)

Variables	item	Mean	SD	Adjusted mean†	rank	% of answer correct
Knowledge**	31	20.55	4.34	0.66		66.3
Basic concept ALL	9	5.91	1.51	0.66	3	65.7
Treatment of ALL	9	6.26	2.00	0.70	1	69.6
Care in maintenance stage	7	4.55	1.24	0.65	4	65.1
Care after treatment of ALL within two years	4	2.49	0.89	0.62	5	62.1
Care in late stage (> 2 years) for long-term survivors	2	1.34	0.88	0.67	2	66.8
Attitude§**	13	49.96	5.81	3.84		
Ability of case management§§**	33	137.74	20.08	4.17		
Care in maintenance stage	17	69.33	11.16	4.08	2	
Care after treatment of ALL within two years	12	52.22	7.00	4.35	1	
Care in late stage (> 2 years)	4	16.19	3.43	4.05	3	

SD, standard deviation.
†mean ÷ item; score ranged from 0 to 1
*a higher score indicating greater knowledge.
§a higher score indicating greater agreement.
§§a higher score indicating better ability of caring children with ALL

Recent Publications (minimum 5)

1. Annett, R. D., & Erickson, S. J. (2009). Feasibility of a school reintegration programme for children with acute lymphoblastic leukaemia. *European Journal of Cancer Care, 18*(4), 421—428.
2. Georgiadi, M., & Kourkoutas, E. E.(2010). Supporting pupils with cancer on their return to school: A case study report of a reintegration program. *Social and Behavioral Sciences, 5*, 1278—1282.
3. Haddy, T. B., Mosher, R. B., & Reaman, G. H. (2009). Late effects in long-term survivors after treatment for childhood acute leukemia. *Clinical pediatrics, 48*(6), 601-608.
4. Liang, D. C., Yang, C. P., Lin, D. T., Hung, I. J., Lin, K. H., Chen, J. S., ... & Lin, K. S. (2010). Long-term results of Taiwan Pediatric Oncology Group studies 1997 and 2002 for childhood acute lymphoblastic leukemia. *Leukemia, 24*(2), 397-405.
5. Oeffinger, K. C., Mertens, A. C., Sklar, C. A., Kawashima, T., Hudson, M. M., Meadows, A. T., ... & Robison, L. L. (2006). Chronic health conditions in adult survivors of childhood cancer. *New England Journal of Medicine, 355*(15), 1572-1582.



Biography (150 word limit)

Shu Yu is a professor of School of nursing, National Yang-Ming University in Taiwan. Chih-Yun Hsieh completed her MS degree in Nursing from National Yang-Ming University in 2015. Kang-Hsi Wu is a pediatric oncology attending physician of China Medical University Hospital. He is also a professor and director of School of Post-Baccalaureate Chinese Medicine, China Medical University in Taiwan. Pei-Fan Mu is a professor and the director of Institute of Clinical nursing, National Yang-Ming University. They have published many papers in scientific journals and international conferences. This study was supported by a research grant from the Ministry of Science and Technology (MOST) for funding this project (Project number: MOST-103-2314-B-010-044-).

Email: yushu@ym.edu.tw;

Notes/Comments: