## 論 文 内 容 要 旨

Perceptions of Oncology Nurses Regarding Fertility
Preservation and Providing Oncofertility Services
for Men of Childbearing Age with Cancer
(生殖年齢にある男性がん患者に対する妊孕性温存
と支援提供に関する看護師の認識)

Journal of Cancer Education, 2021, in press.

主指導教員: 宮下 美香教授

(医系科学研究科 老年・がん看護開発学)

副指導教員:岡村 仁教授

(医系科学研究科 精神機能制御科学)

副指導教員:永田 靖教授

(医系科学研究科 放射線腫瘍学)

## ZHANG HANFENG

(医系科学研究科 総合健康科学専攻)

Purpose: People who survive cancer are now living longer, and the issue of continuing fertility has become a vital health concern. International guidelines recommend that healthcare providers should discuss fertility issues with all cancer patients of childbearing age as early as possible even if the patients have poor prognoses or advanced disease. In China, familial ties are most important, and many people desire a thriving family with plenty of children. Chinese couples who cannot have children due to infertility often endure familial and peer chastisement. Unfortunately, only 49.5% of Chinese oncologists routinely informed men of childbearing age that their cancer treatment may result in infertility. Meanwhile, oncology nurses rarely discuss fertility preservation issues with male cancer patients and colleagues. Thus, relatively few Chinese men with cancer utilize fertility preservation methods. While there are studies of the knowledge and attitudes of oncologists and cancer patients regarding fertility preservation in China, little is known that is specific to oncology nurses. We aimed to uncover the knowledge, thoughts, and attitudes of oncology nurses regarding fertility preservation for male cancer patients of childbearing age, and for offering counseling or oncofertility services for the men in their care in China.

Methods: Data was collected from 18 oncology nurses in Southwest China using semi-structured interviews. For inclusion, all the participants had a nursing degree and specialized in oncology nursing, with more than one year of qualifying work experience in cancer care settings, and were actively providing direct care to male cancer patients. All interviews were given by one of the research team members, in a separate and quiet office in the hospital. Before each interview, an information leaflet was provided to the interviewee to be filled out, and informed consent was obtained. The audio-recorded, face-to-face, one-on-one interview was conducted in accordance with a semi-structured guide that had been developed using the Knowledge, Attitude, and Practices (KAP) model. Questions during the interview covered three main aspects: current knowledge and access to knowledge regarding fertility preservation; attitude toward fertility preservation; and practice and engagement in fertility preservation counseling and referral. Each interview lasted 10 to 40

minutes, and was conducted in Chinese. The qualitative interview data were analyzed using a descriptive phenomenology method based on the lived experience of the nurses.

Results: Eighteen oncology nurses, all women, were interviewed in this study. Of them, most were aged 30-39 (11/18, 61%), married (14/18, 78%), with one child (11/18, 61%), and had worked less than 10 years (10/18, 56%). Most had a Bachelor's degree (13/18, 72%), and eight (44%) and nine (50%), respectively, specialized in radiation oncology and held an intermediate-level professional title. Interviews with Chinese oncology nurses revealed six themes concerning the fertility preservation, namely: (1) insufficient knowledge of fertility preservation; (2) inadequate nursing education regarding fertility preservation; (3) importance of offering fertility preservation services to cancer patients; (4) legal vulnerability if fertility preservation information is withheld from patients; (5) role of the nurse in fertility preservation counseling; (6) barriers to discussing fertility preservation in practice. Nurses had a positive attitude toward fertility preservation, but most had no role in routinely informing male patients of their options, and they perceived that the discussion of fertility preservation was outside their scope of practice.

Conclusions: This study generated further insight into the perceptions of oncology nurses in a developing country about providing fertility preservation services for adult male cancer patients. Highlighted is the lack of knowledge and confidence to provide oncofertility services among Chinese oncology nurses. To facilitate discussing fertility preservation issues with patients, oncology nurses must have access to more opportunities in education and greater status of profession. Fertility preservation guidelines must be established, and the relevant training programs should be provided. Future research should therefore focus on the effectiveness of fertility preservation counseling and referral in nurse-led clinics. In addition, further discussion regarding how to train local fertility nurses is necessary, as well as how to improve the professional confidence of oncology nurses in addressing fertility preservation issues.