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開発途上国むけアスベスト関連疾患ケア教材の開発

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Development of an Educational Tool for the Supportive Care of Asbestos-related Diseases in Developing Countries

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開発途上国むけアスベスト関連疾患ケア教材の開発

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〔Abstract〕

The use of asbestos in developing countries remains extensive despite its known harmful effects on health and the increase in asbestos-related diseases. Unfortunately, nurses in developing countries are not educated on asbestos-related diseases. To address this concern, we developed an educational tool for the supportive care of asbestos-related diseases specifically for medical professionals in developing countries. This educational tool includes a narrative video of a patient with asbestos-related disease and a handbook describing the symptoms of asbestos-related diseases and the appropriate supportive care. We used this educational tool in a training workshop that we conducted initially in the Philippines. The video provided relevant education to the medical professionals on how asbestos-related diseases affect the lives of patients, and how to provide care and fully support them. Despite their improved knowledge regarding the symptoms of asbestos-related diseases from the handbook, the trainees in the Philippines still had to prioritize providing care to patients with more pressing medical conditions such as tuberculosis, acute respiratory diseases, or dengue fever.

〔Key words〕 Asbestos, Educational tool, Developing country, Mesothelioma, Supportive care

〔要旨〕

アスベスト使用量が増加している開発途上国では、今後アスベスト関連疾患患者が多数発生するものと見込まれている。しかしながら、多くの開発途上国ではアスベスト関連疾患に関する看護教育が実施されていない。そこで、開発途上国の医療従事者むけに、患者の語りを取り入れたビデオと、ケアについてわかりやすいイラストを多用したハンドブックを開発した。教材は、フィリピンの医療従事者むけアスベスト教育プログラムで使用された。ビデオは医療従事者の、アスベスト関連疾患が患者の生活に及ぼす影響の理解に役立った。一方で、アスベスト関連疾患ケアについてのハンドブックは、感染症等の優先度の高い開発途上国の医療従事者にとっては関心が薄かった。

〔キーワードズ〕 アスベスト、石綿、教材、開発途上国、中皮腫、看護

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I. Introduction

Asbestos is known to cause asbestos-related diseases (ARDs) such as asbestosis, lung cancer, and mesothelioma. Occupational exposure to asbestos results in an annual deaths of 107,000 people as reported by the World Health Organization (WHO), prompting WHO to take measures for the elimination of ARDs^{1) 2)}. With the banning of asbestos use in many industrialized countries, the market has shifted its target to developing countries that lack stringent regulations for controlling asbestos usage. The increased use of asbestos in these countries is thus expected to cause a subsequent increase in ARDs³⁾. Approximately over one million deaths from asbestos-related malignancies have been estimated in developing countries to date⁴⁾. Thus, the effective control of asbestos use, the accurate diagnosis and treatment of ARDs, and the appropriate care for ARD patients in developing countries are urgently needed.

II. Asbestos training workshop in developing countries

To raise awareness regarding the hazards of asbestos and to improve knowledge about ARDs in developing countries, we started an asbestos training workshop in the Philippines. Similar workshops are being planned for Thailand and Zimbabwe. The workshop that we conducted in the Philippines on July 2019 was sponsored by the United Nations Environment Program and organized by the Asbestos Disease Research Institute in association with WHO and the International Labor Organization.

Government officers, occupational health specialists, researchers, and clinical professionals composed of oncologists, pathologists, pulmonologists, and nurses attended the training workshop. Dr. Sarah Nagamatsu gave a lecture about the supportive care for ARD patients to the medical specialists among the trainees.

In this article, we report the educational tool for the supportive care of ARDs that we developed for developing countries, and its initial use in the Philippines.

III. Educational tool for the supportive care of asbestos-related diseases

1. Aims of the educational tool and target population

The educational tool for the supportive care of ARDs aims to (a) improve understanding of the difficulties faced by ARDs patients and (b) enhance knowledge of the supportive care for ARDs by medical professionals in developing countries.

2. Components of the educational tool

In developing countries, the detection and diagnosis of ARDs remain difficult. Many ARDs patients are misdiagnosed or diagnosed at a late stage. In addition, most medical professionals have little experience of providing care for ARDs patients. To improve their understanding of the difficulties faced by ARD patients, we prepared a narrative video of an ARD patient. To enhance their knowledge of the supportive care for ARDs, we developed a special handbook particularly for this purpose. Both components, namely, the narrative video and the handbook, proved helpful for the trainees.

3. Video (Picture 1)

For a better understanding of the difficulties faced by ARDs patients, we included several features of an actual ARD patient as follows:

- (a) the manner of speaking and the way of breathing of the ARD patient
- (b) the life story of the ARD patient in a narrative form

These features were anticipated to have a powerful impact on the perception, experience, and knowledge of ARDs among the trainees.

Our long-term goal was to change the mindset of the medical professionals by emphasizing both the difficul-



Picture 1: Narrative video of an ARD patient

ties experienced by ARDs patients and the impact of ARDs on their lives.

Summary of the patient's narrative

The patient was exposed to asbestos since she was a baby. She was placed in a cradle next to her mother in an asbestos factory where her mother worked. Her parents who worked in the asbestos factory developed ARDs, and she eventually developed a form of the disease called asbestosis. This form of ARDs caused severe dyspnea which severely affected her daily life. Despite her wish to take hot baths, the water pressure prevents her from breathing normally. Moreover, asbestosis has forced her to stop her nursing career and has greatly impacted on her finances. Because of these difficult experiences, she has become a strong advocate for the non-usage of asbestos. She has also become a voice for improving the care of ARDs patients not only in the Philippines but also in countries across the world. We kept her voice in the video and added English subtitles.

4. Handbook (Figure1, 2)

The 31-page handbook was designed to be used as an

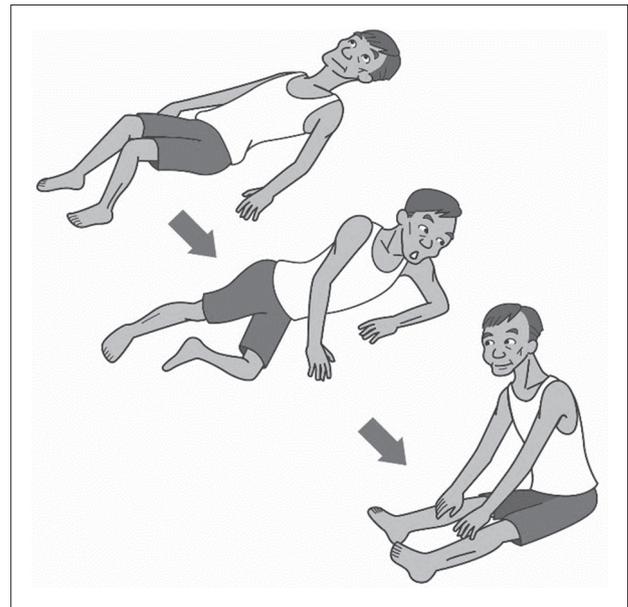


Figure 2: Illustration showing the patient how to get up

educational tool for medical professionals and ARDs patients in developing countries. Therefore, its usage encompasses the clinical settings in developing countries. The handbook includes important contents and illustrations as follows:

(1) Contents

- Different forms of asbestos-related diseases
- Reasons for providing supportive care to patients and their families
- Essentials for supportive care in ADRs
- Supportive care for asbestosis
- Supportive care for malignant pleural mesothelioma

(2) Illustrations

We used 25 illustrations and images to help the readers understand this unfamiliar disease. We prepared illustrations of ARDs patients for the targeted countries, namely, the Philippines, Thailand, and Zimbabwe.

IV. Discussion

The educational tool that we developed was used in the first training we conducted in the Philippines. The impact of the video of the ARD patient was apparent. From watching the video the trainees easily understood the extremely difficult life experienced by patients with asbestosis. Moreover, the trainees naturally sympathized with the patients and realized the hazards of asbestos.

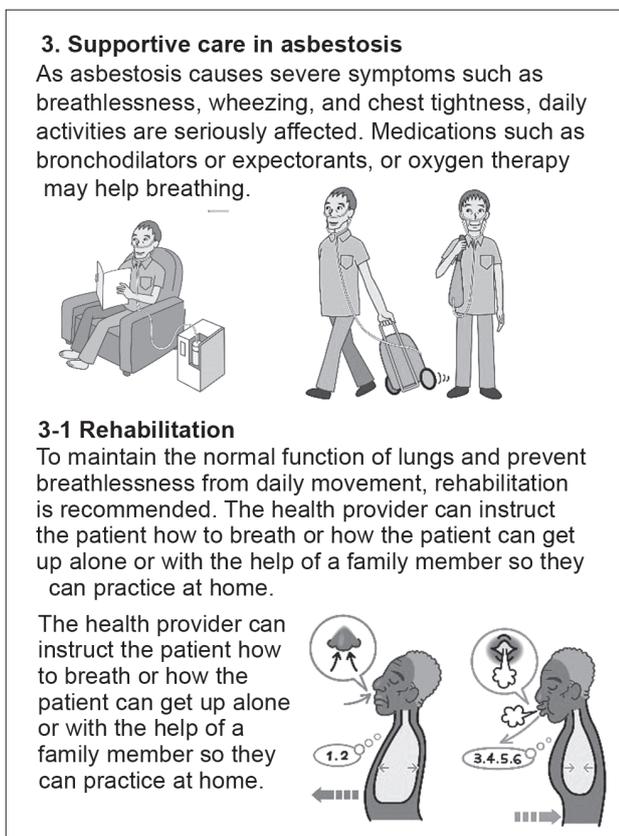


Figure 1: A page of the handbook describing supportive care in asbestosis and rehabilitation

In particular, the handbook enhanced understanding of the strong impact of ARDs on the lives of the patients, as well as how to support them. However, the immediate use of the handbook by the medical professionals in the Philippines is uncertain because serious communicable diseases such as tuberculosis, acute respiratory diseases, or dengue fever are prioritized. Incurable ARDs are hardly diagnosed and even ignored.

One of the important messages of the training that we conducted in the Philippines was “As all ARDs are progressive and incurable you should stop using asbestos”. It is anticipated that the Philippines will see an increase in the number of ARD patients because of previous asbestos use. Thus, the prevention of ARDs and the care of ARD patients must be improved and prioritized not only in the Philippines but also in other developing countries.

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