Study to evaluate the infection control practices to prevent transmission of Pulmonary Tuberculosis (TB) among health care personnel working in selected units of a tertiary care hospital at Udupi district Karnataka.

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ABSTRACT

A research study titled, “Study to evaluate the infection control practices to prevent transmission of Pulmonary Tuberculosis (TB) among health care personnel working in selected units of a tertiary care hospital at Udupi district, Karnataka” was carried out. Objectives of the study were to assess the knowledge and practices of infection control followed by health care personnel, assess the infection control resources and facilities available in Units which takes care of Patient with pulmonary tuberculosis and identify the factors which help in to improve the infection control practices to prevent transmission of pulmonary tuberculosis using focus group discussion.

Conceptual framework of this study was based on Ishikawa model (1968) which shows causes for a specific event. The study approach was mixed method approach and the research design was sequential explanatory design. Quantitative approach was used to assess the knowledge and practices of infection control by health care personnel in selected units in the first phase of the study. A focus group was carried out to gain a deeper understanding and identifying factors in improving the practices in infection control area. The study consisted of 82 health care personnel for assessing knowledge and 300 events for observing practices in the quantitative phase. Fourteen participants were selected for focus group discussion in the qualitative phase.

The data collection instruments comprised of demographic proforma, knowledge questionnaire on infection control practices of Pulmonary TB, a checklist for observation of practices followed by health care personnel, a standardized tool to assess the health care facility by WHO and focus group lead questions. Content validity was established by giving the tool to seven experts. Pretesting of the tool was done among 10 participants and reliability was achieved by administering it to 20 participants. Reliability value for the structured knowledge questionnaire and observation checklist for practice was 0.87 and 0.79 respectively. Pilot study was conducted among 10 participants and necessary modification was done. The study was found feasible.

Quantitative data was collected in the first phase and then qualitative data were collected by using a focus group discussion. Quantitative data was analyzed using descriptive statistics and qualitative data was analyzed by thematic analysis. Mixing was done in the analysis phase.

Findings of the study showed, majority of the subjects who participated in the study were in the age group ranging from 20-30 years (89.2%) and 10.8% of the participants were more than 30 years in age. Most of the study participants were female (68.3%). Majority of the participants were from Nursing Department (56.1%), 28% of them were Respiratory therapist and (15.9%) of the participants were Doctors. Majority of the participants (61%) had clinical experience of more than one year. Most (84.1%) of the participants had not received training on Pulmonary Tuberculosis (TB).

Data also showed Majority (58.5%) of the participants had good knowledge. Seventy four point one percentage (74.1%) participants had answered correctly in the area of personal protective equipment. Findings also showed that majority (51.3%) of the participants performed hand hygiene before touching the patient. Most of them (74.3%) performed hand
hygiene before any clean procedure. Most of them (94%) performed hand hygiene after body fluid exposure risk. All of the health care personnel correctly

performed waste management in terms of discarding mask and gloves. None of the sputum samples were disinfected before discarding.

Five themes emerged from the analysis of the FGD disunion and 14 subthemes related to different aspects of infection control which helped health care personnel to improve the infection control practices.

Assessing health care personnel’s and health care facilities for infection control practices will help to induce a standard infection control plan, educating health care personnel, performing triage for suspected active tuberculosis patient etc. Understanding the challenges and experiences of health care personnel regarding noncompliance towards these practices is important for any facility to improve the quality of practices. Thus the study created opportunity for the health care system to implement infection control practices among health care personnel.

Implication for nursing practice, education and research were derived. Keeping in view of the findings of the present study, recommendations were made for future research studies.