Theme 2: Diabetes and It's management OP7

Development of pictograms regarding medication use and lifestyle modification for diabetic patients in Teaching Hospital Jaffna

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Introduction and Objectives: Diabetes mellitus is a significant health problem. The best way to increase the quality of life of a Diabetic patient is through lifestyle modifications and proper medication use. The use of pictograms to convey health information may improve patient understanding and increase the efficiency of treatment. This study aimed to develop and pilot the pictograms regarding medication use and lifestyle modification among diabetic patients attending the diabetic clinic, Teaching Hospital, Jaffna.

Methods: It was a mixed-method study and was conducted in three phases. Phase I – Brainstorming, brainstorming discussion was conducted with health professionals and patient experts to identify critical areas/concerns to be covered by the pictograms and the message conveyed. Delphi technique with three rounds among three different groups of patient experts was used for Phase-II. Phase –III is a pilot study in which all diabetic patients were asked to interpret the meaning of adjusted pictograms. The calculated sample size for the pilot study was 426. For this study, the American National Standards Institute (ANSI) standard on Criteria for Safety Symbols to assess the comprehension level of pictograms was used. An 85 % comprehension rate was the minimum cutoff for acceptability.

Results: Pictograms were developed for Healthy diet, Regular exercise, Regular checkups, Stress management, Avoid smoking, Avoid alcohol intake, Footcare, Self-monitoring of blood glucose level, Self-monitoring of blood pressure, Regular eye checkups, Prevention of a hypoglycemic attack, Regular intake of medicine, Storage of insulin, Proper administration of insulin and Insulin injection sites as main vital areas to be covered by pictograms. Out of 426 patients, 288 patients were able to assess the understandability of pictograms due to the covid-19 pandemic situation. Out of 19 pictograms, 18 pictograms had expected comprehension levels and were selected as validated pictograms. Pictograms that did not meet the comprehension level will not be used in future studies.

Conclusion: Newly developed pictograms for medication use and lifestyle modification could be used among patients in hospitals and clinics for providing information regarding lifestyle modification and medication used to diabetic patients, particularly those who have difficulties in reading texts. However, they need to be validated in diabetic patients in other parts of Sri Lanka to determine the universal applicability.

Keywords: Pictograms, Diabetic patient, Lifestyle modification, Medication use.