Integrative Review of Self-Care Measurement in Diabetes Nephropathy

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PURPOSE

• Among diabetes complications, the rate of prevalence for nephropathy was 30-40% of diabetes patients in literature.
• For controlling the diabetes nephropathy (DN), patients should have the complicated self-care competence.
• Lots of patients have experienced the difficulties for managing those complicated situations.
• However, lots of studies have researched the DN self-care behavior as measuring the diabetes focused self-care behaviors.
• Thus, this purpose of this study was to describe self-care research related to diabetic nephropathy patients and to analyze instrument for measurement of self-care.
The review questions were as follows:

Q1) How many studies were focused on self-care behavior for DN, and what study characteristics they reported

Q2) What kinds of instruments they used for measuring the self-care for DN?
METHODS

• Database : Pubmed, EMBASE, Cochrane library, CINAHL

• Period : 2005 – 2016

Search terms : "Diabetes Mellitus"[Mesh] AND "Self Care"[Mesh]) AND "Kidney Diseases"[Mesh]

• The coding schemes for study consist of two folds such as population characteristics (sample size, age distribution, gender, clinical status, etc.) and study characteristics (design, instrument, main variables and its outcomes, methodological quality level, etc).
1466 records identified through database searching

- CINAHL 25
- Chochrane 12
- Embase 1273
- Pubmed 156

< 2004 year: n = 260
Duplicated were eliminated: n = 71
Total: 331

Title and abstract 1135 records screened

Nor relevant inclusion criteria: n = 939

196 full-text articles assessed for eligibility

183 full text article excluded
- Not English language: 11
- Not article: 22
- SR, Meta study: 26
- Qualitative study: 9
- Patient without DMCRF: 61
- Not self-care instrument: 54

Final included studies: 13
1. Q1 How many studies were focused on self-care behavior for DN, and what study characteristics they reported?

- The 6 studies out of 13 were cross-sectional design, and 4 studies were experimental design. The remained 2 studies were case study and mixed method study. The number of studies that included only DN patients was 8 articles.
- The numbers of sample size in 6 studies were less than 100, whereas the four studies were from 100 to 200. In remained three studies, more than 200 participants were recruited for study.
RESULTS

1. Q1 How many studies were focused on self-care behavior for DN, and what study characteristics they reported?

• Various academic areas such as Nursing, Medical, Pharmacology and Psychology were involved in studies.
• In 13 studies, the clinical factors such as biochemical results (BUN, Cr, HbA1c, etc.) and psycho-cognitive-emotional variables (self-efficacy, quality of life, knowledge of disease, self-management capacity, depression, feeling of loneliness, hopelessness, etc.) were used.
RESULTS

2. What kinds of instruments they used for measuring the self-care for DN?

• Twelve instruments for measuring self-care behaviors in DN were found.
• Summary of Diabetes Self-Care Activities (SDSCA) revised instrument was used in five studies.
• The Self-Management Capacities Scale (SMCS), Dialysis Diet, and Fluid Non-Adherence Questionnaire (DDFQ) were used in 2 studies.
• The Morisky Medication Adherence Scale (MMAS)-4 items and 8 items (MMAS-8) were also measured in 2 studies for assessing the self-care in DN.
2. What kinds of instruments they used for measuring the self-care for DN?

• Moreover, the Partners In Health (PIH), the cognitive restraint subscale of Three Factor Eating Questionnaire (TFEQ), and Self-care Ability Scale were used in 3 studies.
• Of total, 10 studies reported the reliabilities of their used self-care instrument, but remained 3 did not report the reliability and validity.
Conclusion

• In this integrative review, relatively small studies (13 studies) during past 10 years were conducted for DN self-care.

• Included studies were assessing the self-care for DN using non-DN specific instruments.

• Thus, DN specific instrument for measuring the self-care should be developed in future study.
Learning objectives

• The learner will able to explain the trend of self-care research for diabetics nephropathy patients. The 6 studies out of 13 were cross-sectional study, and 4 studies were experiment study.

• The learner will able to explain the instruments for measuring for diabetics nephropathies self-care. There was little instruments for measuring diabetics nephropathy specific self-care.