## COMMENTS AND RESPONSES

## National Standards for Diabetes Self-Management Education

Response to Funnell et al.

vidence indicates that diabetes selfmanagement education using empowerment models improves patient outcomes (1). It also shows that a variety of pathways have been used for achieving patient empowerment. Two pathways, general self-efficacy (2) and sense of coherence (3), have shown high utility. Selfefficacy is an individual's confidence in their capabilities to perform a specific action that has influence over their life. Sense of coherence is not a particular coping style but a salutogenic approach explaining good health and positive adjustment. The credit of these two pathways lies with their generic nature, which may offer additional benefits to patients' self-management with other comorbidities.

The influence of these two generic pathways in patient empowerment is

compared by reanalyzing the data obtained in a previous study (4) with 102 type 2 diabetic subjects (mean age 58 years). Patient empowerment was measured by the Diabetes Empowerment Scale (5). Subjects also filled out the General Self-efficacy Scale and the Sense of Coherence Scale. Demographic (age, sex, marital status, education, and employment status) and clinical (years of diabetes duration, insulin use, and attendance for diabetes education) data were collected.

Multiple linear regression analysis using a backward elimination method was conducted to determine predictors for diabetes empowerment. All demographic, clinical, and scale data were initially entered as independent variables. The regression model identified three predictors for higher levels of diabetes empowerment, accounting for 62% of variance: higher sense of coherence, higher self-efficacy, and younger age (standardized  $\beta = 0.524$ ,  $\beta = 0.233$ , and  $\beta = -0.196$ ; and  $\beta = 0.000$ , all respectively).

Whereas both pathways predict diabetes empowerment, sense of coherence is stronger. The study is limited by the design and sample size. Nevertheless, it serves as a pointer for diabetes education practice and research.

ANN T.Y. SHIU, PHD, RN

From the Nethersole School of Nursing, the Chinese University of Hong Kong, Shatin, Hong Kong.

Address correspondence to Ann T.Y. Shiu, Nethersole School of Nursing, Chinese University of Hong Kong, Shatin, Hong Kong. E-mail: annshiu@cuhk.edu.hk.

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