



National Healthcare Group
POLYCLINICS



Predictors of Motivation for Type-II Diabetes Mellitus Self Management of Patients in Primary Care in Singapore

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INTRODUCTION

1. Diabetes is among the top 10 causes of death in Singapore.
2. Many studies have shown that motivation is related to greater success in promoting and maintaining health behaviour change, including diabetes self-management¹⁻⁵. However, little emphasis has been placed on investigating factors that contribute to levels of motivation for change.
3. Motivation, when driven by personal perceptions about health, enhances diabetes self-management⁶. Thus, it is worth exploring how patients' illness perceptions about diabetes affect their motivation in diabetes management.
4. In addition, little has been done in exploring the relationship between patients' emotional distress about diabetes and motivation in diabetes management. It is also important to know how patients' mental health status affect motivation in diabetes self-management.
5. This study aims to explore the cognitive and emotional factors that affect patients' motivation in diabetes self-management.

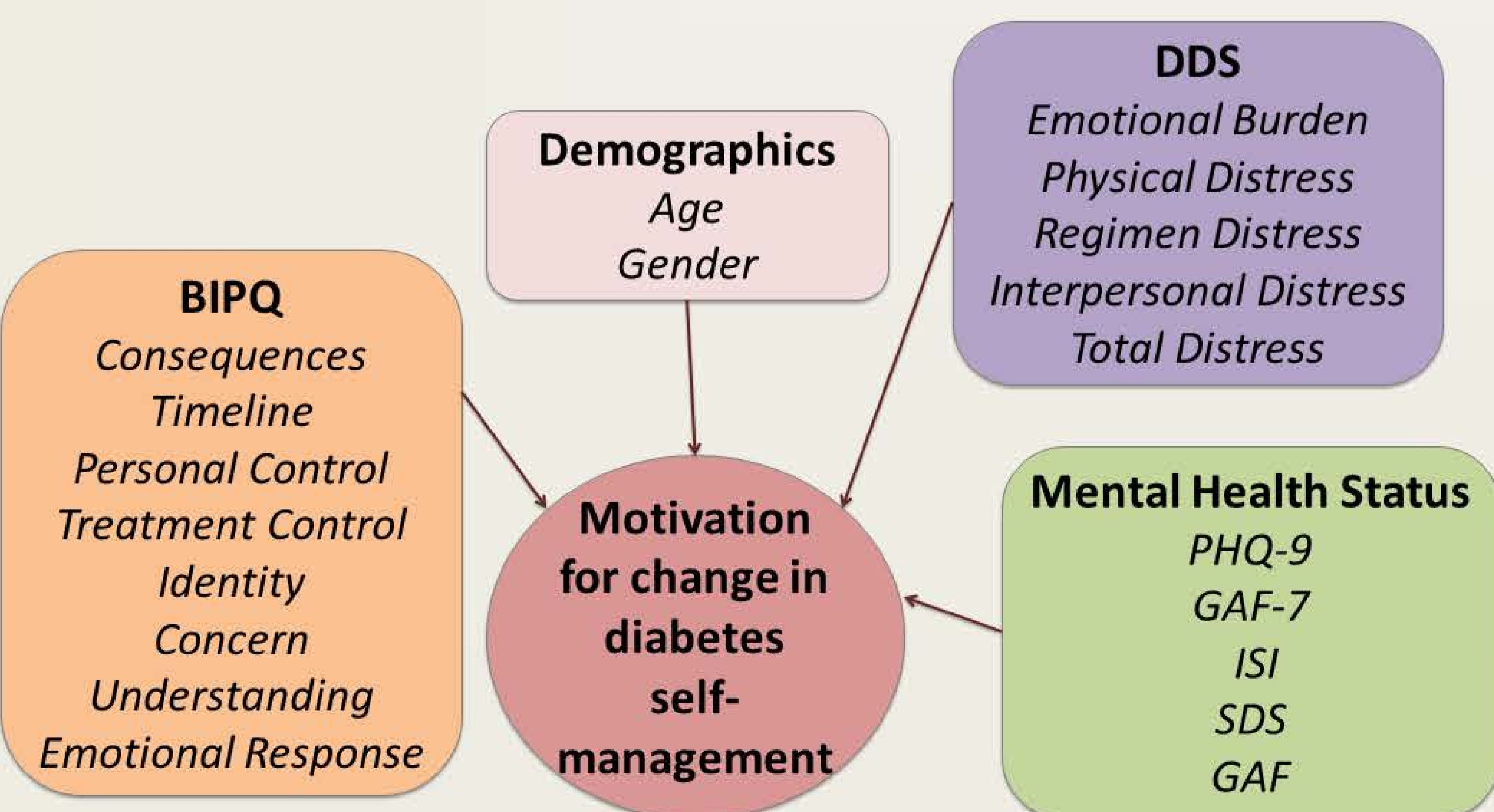
OBJECTIVE

This study aims to explore:

1. How patients' personal perceptions of diabetes affect motivation in diabetes management.
2. How patients' (1) emotional distress about diabetes and (2) mental health status affect motivation in diabetes management.

METHODOLOGY

1. Seventy participants with diagnoses of diabetes (age range from 26 to 78, 29 male, 41 female) were recruited.
2. Questionnaires to determine their personal beliefs about diabetes, *The Brief Illness Perception Questionnaire (BIPQ)*, and emotional distress about diabetes, *The Diabetes Distress Scale (DDS)*, were administered.
3. Indicators on patients' level of motivation for change (*Readiness-to-Change Ruler*), mental health status (*Patient Health Questionnaire-9*, *Generalised Anxiety Disorder-7*, *Insomnia Severity Index*, *Sheehan Disability Scale*, and *Global Assessment of Functioning*), and demographic information were retrieved from patients' medical records.
4. The data was not normally distributed, thus a Spearman's rank order correlation coefficient was used to analyze correlations between all demographic, cognitive and emotional variables and motivation for change. Second, multiple regression analysis was conducted to find out the significant predictors of motivation for change in diabetes management.

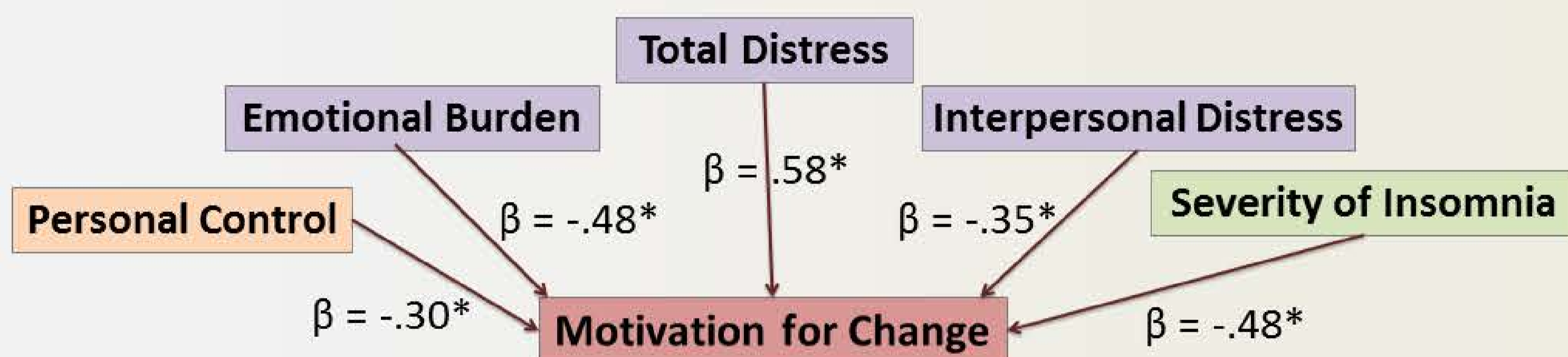


RESULTS

1. **Correlation analysis** Motivation for change (*median* = 7.00, *interquartile range* = 3.00) was found to be significantly correlated with ISI ($r_s = -.35, p < .01$); emotional burden ($r_s = -.30, p < .05$), interpersonal distress ($r_s = -.27, p < .05$), and total distress scales ($r_s = -.24, p < .05$) from DDS; and personal control scale ($r_s = -.25, p < .05$) from BIPQ.

	BIPQ	DDS			Mental Health Status
Spearman's rho (r_s)	Personal Control	Emotional Burden	Interpersonal Distress	Total Distress	Severity of Insomnia
Motivation for change	-.25*	-.30*	-.27*	-.24*	-.35*

2. **Multiple regression analysis** Severity of insomnia symptoms ($\beta = -.26, p < .05$), emotional burden of diabetes ($\beta = -.48, p < .05$), interpersonal distress of diabetes ($\beta = -.35, p < .05$), total distress of diabetes ($\beta = .58, p < .05$), and perception of personal control over diabetes ($\beta = -.30, p < .05$) significantly predicted motivation for change in diabetes management ($R^2 = .26, F(5, 62) = 4.26, p < 0.01$).



DISCUSSION & CONCLUSIONS

1. **More severe insomnia, and higher level of emotional and interpersonal distress over diabetes** significantly predict patients' **lower level of motivation in diabetes management**.
2. Practitioners can address these factors that can potentially increase motivation for self-management. These may in turn increase positive outcomes for diabetes management.
3. **Lower level of perceived personal control and confidence over diabetes** and **higher level of total distress over diabetes** predicts **higher level of motivation in diabetes management**.
4. Personal control is an individualistic Western value, it may not be applicable to collectivist Asian culture. Low personal control might suggest high collective efficacy (i.e., perception of mutual trust and willingness to help each other), which is valued in the Asian context and thus might predict high motivation in diabetes management.
5. Future studies could focus on examining patients' responses from a qualitative perspective, e.g., to investigate the underlying mechanisms that mediate perception of personal control and motivation for change in diabetes management.

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