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Road Maps on Diabetic Management

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ABSTRACT

Information is the most important ingredient for the process of staging a structured model; they act as platforms between the levels of scaffolding. The unstructured information does not have any predefined data model. Here we used a structured communication technique which relies on experts. Moreover, the structured data refers to information with a high degree of Reliability. It includes a relational database which is seamless and readily searchable by simple. SEM is a measurement model which examines the relationship between the latent variables and their measures. To saturate the structural model here, all the latent variables are allowed to correlate. Hence misfits are sorted out on the measurement model. We developed a hypothetical model based on scaffolding to predict the health outcomes of the Diabetic patients.



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INTRODUCTION

Diabetes a worldwide pandemic disease associated with significant morbidity and mortality. The global population of diabetic people is projected to increase to 642 million by 2040. Early detection, intervention strategies and counselling about the diabetes risk can prevent the progression of micro and macro complications of diabetes. (Andres Roman-Urrestarazu et al. 2016), This study was conducted to develop a model and to test the model on the counselling which helps to predict the health outcomes so that prevention is easily defined on groups at high risk for progression to diabetes in young people

The present work proposes a robust methodology, Based on the Unstructured information, we used a structured communication technique so that, the structured data refers to the useful information with a high degree of Reliability.

SEM is a measurement model which examines the relationship between the latent variables and their measures. To saturate the structural model here, all the latent variables are allowed to correlate. Hence misfits are sorted out on the measurement model. We developed a hypothetical model based on scaffolding to predict the health outcomes of the Diabetes patients.

THEORETICAL FRAMEWORK

Basic Knowledge

Even though there is a large population of diabetes, many people with diabetes may wish they could be less aware of their diabetes In general. Diabetes cannot be controlled by medicines alone. Knowledge of diabetes requires Changes in lifestyle and health-related behaviours, such as exercise, diet, continuous self-monitoring of blood glucose and coping, foot care, and stress management.

Counsel

The counselling to diabetes patients are not intended to replace professional judgment and experience. This counsel intended to inform the general patterns of care, to enhance diabetes prevention efforts and to reduce the burden of diabetes complications in people living with this disease. The turn in effect is the best evidence available at that time. Moreover, practitioners are encouraged to update with the latest information in this rapidly changing field. While every care has been taken to ensure accuracy, when diabetes people do not have any prior knowledge about the diabetes information, counsel is recommended. These guidelines pertain to care the diabetes people at primary healthcare level.

Behaviour Skill

Diabetes is a heterogeneous condition and continuous monitoring management which requires the input from many role players. It requires efforts, from a multidisciplinary team of counsellors and their constant support in assisting people living with diabetes in their choices in food, medication, and in their exercises. (Zabetian et al. 2013). The goal of the study is to empower the people living with diabetes to be more engaged and to be informed about their conditions.

Change in Behaviour

This study suggested the diabetic patients change their health behaviour; change in health behaviour affects an individual's objective and subjective outcomes. Therefore, this study constructed the paths on which basic information and counselling about diabetes, behavioural skills interact; they affect the behaviour of the healthy outcome directly.

Materials and Methods

A study was carried out to identify whether the guidelines help the diabetic patients for their health outcomes. This study explains the questionnaire development and its associated activities. RMSEA and the chi-square test are used to explain the multivariate models.

Study design

Data were collected using a structured self-completion questionnaire. This study used a cross-sectional design and structural equation modelling (SEM) and Confirmatory Factor Analysis (CFA) to analyse the relationships among the variables related to health outcomes of people with diabetes.

Conceptual Framework

Behavioural changes in diabetic patients influence the event. Counselling methods are tuned so that it

paved a way to change their behaviour. (Mokdad A et al., 2001) Even the people do not have the basic knowledge about diabetes. Counselling helps them to get the prior information about their disease, and also about their treatments.

The variables used in the structural equation model are

I. Observed, endogenous variables

1. Behaviour skills
2. change in behaviour
3. Health outcome

II. Observed, exogenous variables

1. Basic information
2. counsel

III. Unobserved, exogenous variables

1. e1: Error term for Behaviour skills
2. e2: Error term for a change in behaviour
3. e3: Error term for Healthy outcomes

Number of the variable in the SEM is

Number of variables in this model	9
Number of observed variables	7
Number of unobserved variables	2
Number of exogenous variables	2
Number of endogenous variables	3

Statistical Analysis

SPSS version 19 a statistical program was used for the analysis, and at latter, a confirmatory analysis with multivariate technique (SEM) was used to evaluate the model for the PCA results. The development of this model was carried out in the Amos software version 20. A sequence diagram was designed to facilitate the causal relations and the relation between the components and indicators. (Bardenheier BH et al., 2013)

Confirmatory Factor analysis (CFA) is also another error reduction technique. The one and two way path analyses were connecting errors based on modification indices. CFA goes one step forward and links the variable and errors to bring down errors. The procedure is the same as in multivariable analysis. (Bonita R, et al., 2013)

To evaluate the overall fit of the model, the likelihood ratio, chi-square statistic was examined, to measure the correspondence between the correlations matrix actual input or observed with that it is predicted by the proposed model. This indicator resulted too high in comparison with the degrees of freedom, which indicates that among the observed matrixes and those, estimated there

Table 1: RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0	0	0.105	0.718
Independence model	0.636	0.599	0.673	0

*RMSEA values show that the independence model is significant than the Default model

Table 2: Fit Indices

S.No.	Abbreviation	Target level	Model	Observed	Conclusion
Chi P value	Probability	close to 0.5	Default model	0.546	Fitted
			Saturated model	-	-
			Independence model	0	Under Fitting
CMIN/DF	Chi/degrees of freedom	2-5	Default model	2.130	Good Fitting
			Saturated model	0	Not Acceptable
			Independence model	814.216	Not Acceptable
NFI	Normed fit index	95%	Default model	0.997	Good Fitting
			Saturated model	1.000	Good Fitting
			Independence model	0	Not Acceptable
CFI	Comparative fit index	95%	Default model	1.000	Good Fitting
			Saturated model	1.000	Good Fitting
			Independence model	0	Not Acceptable
PCFI	Parsimony CFI	60%	Default model	0.300	Not Acceptable
			Saturated model	0	Not Acceptable
			Independence model	0	Not Acceptable
NCP	Non-Central Parsimony	0	Default model	0	Good Fitting
			Saturated model	0	Good Fitting
			Independence model	814.216	Not Acceptable
RMSEA	Root Mean square error of approximation	5%	Default model	0	Good Fitting
			Saturated model	-	-
			Independence model	0.636	Not Acceptable

is a significant difference. Therefore this evaluation was completed.

RESULTS AND DISCUSSION

This Study reveals the χ^2 value is statistically significant, and also the HOELTER index, $2\chi^2/(N-1) + 1$, values are higher than 200. Based on HOELTER, the Default and independence model at 5 % and 1 % is on Good Fitting.

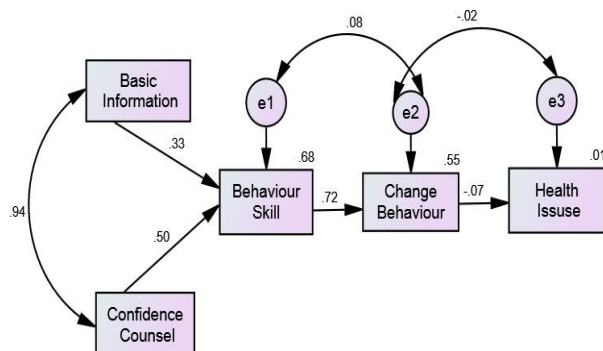


Figure 1: Standardized Estimates

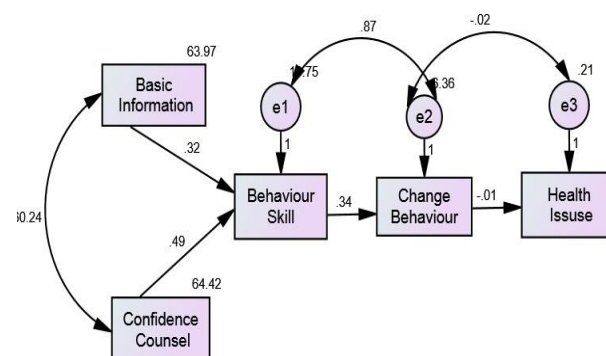


Figure 2: Unstandardized Estimates

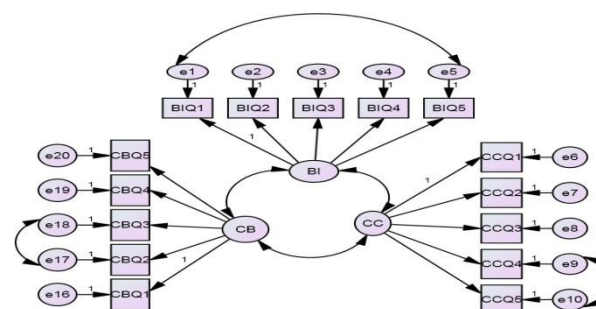


Figure 3: CFA on Diabetic Model

Confirmatory Factor analysis (CFA) is also another error reduction technique. The one and two way path analyses were connecting errors based on modification indices. CFA goes one step forward and links the variable and errors to bring down errors. The procedure is the same as in two variables analysis.

CONCLUSION

Impurities in data distort the results. Hence the errors are filtered out, and the factor structure of a set of observed variables is also verified, Confirmatory Analysis reduces the correlation errors and hence the relationship between observed variables and their underlying latent variables are held well in this study.

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