

# Type 2 Diabetes Patients Hospitalized: Relationship between Diabetes Complications and Triglyceride-Glucose Index

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**Received:** 28-Nov-2022, Manuscript No. jdm-22-20992; **Editor assigned:** 01-Dec-2022, PreQC No: jdm-22-20992(PQ); **Reviewed:** 15-Dec-2022, QC No: jdm-22-20992; **Revised:** 22-Dec-2022, Manuscript No: jdm-22-20992(R); **Published:** 29-Dec-2022, DOI: 10.35248/2155-6156.1000972

## Abstract

The aims of this study were to perform a cultural translation of the DMSES and measure the psychology properties of the translated scale in an exceedingly Korean population with sort two diabetics. This study was conducted in patients with polygenic disorder recruited from university hospitals. The primary stage of this study concerned translating the DMSES into Korean employing a forward- and backward-translation technique. The content validity was assessed by associate degree skilled cluster. Within the second stage, the psychology properties of the Korean version of the DMSES (K-DMSES) were evaluated. Sixteen-items clustered into four-subcales were extracted by alpha correlational analysis, and supported by confirming correlational analysis. The construct validity of the K-DMSES with the outline of polygenic disorder Self-Care Activities scale was satisfactory. The Cronbach's alpha and infraclass parametric statistic were zero.92 and 0.85 (ninety fifth -0.91), severally, that indicate glorious internal consistency liableness and test-retest liableness. The K-DMSES may be a temporary instrument that has incontestable sensible psychology properties. It's so possible to use in observe, and is prepared to be used in clinical analysis involving Korean patients with sort two polygenic disorder.

**Keywords:** Chronic heart failure; Type 2 diabetes; Triglyceride glucose index; Cardiovascular death; Microvascular complications; Nonalcoholic fatty liver disease

## Introduction

The prevalence of polygenic disorder has reached associate degree virtually epidemic level. Concerning 382 million folks within the world have polygenic disorder, and this range is predicted to rise to 592 million by 2035. The prevalence of diagnosed polygenic disorder in chosen has enlarged from two within the Nineteen Seventies to nine.8% in 2011, and in 2012 the speed for patients with poor glycemic management was reportedly as high as seventy one.5%. These findings counsel the presence of a considerable money burden on the Korean health-care system [1].

Diabetes may be considerably improved by playacting tasks like taking prescribed medications, observance blood sugar levels, intake associate degree acceptable diet, and sweat often. These area unit all regular behaviours that patients should perform to regulate their malady, a method that's termed self-management. The normal approach to diabetes polygenic

self-management has been to teach patients concerning the disease and supply them with the abilities necessary to regulate it. In keeping with one systematic review, though such self-management education seems to achieve success, it exerts solely small-to-moderate effects on the polygenic disorder. Polygenic disorder researchers insist that providing patients with data and skills is crucial, however these approaches seem to be depleted for as well as the specified activity changes among patients with polygenic disorder. Therefore, more factors that contribute to more practical polygenic disorder self-management got to be thought of [2].

Self-efficacy, a term that's derived from the social psychological feature theory, refers to "belief in one's capability to arrange and execute the course of action needed manufacturing given levels of attainments". Self-efficacy influences the individual's alternative of behaviours; folks tend to interact in tasks after they feel competent to perform them and to avoid them after they feel that they exceed their capabilities. Self-efficacy additionally influences however folks inspire themselves within the tasks that they undertake. That is, folks with a powerful sense of self-efficacy read their tasks or behaviours as challenges to be down pat, even though they're troublesome. Efficacious folks tend to line difficult goals and maintain commitment to them. additionally, self-efficacy beliefs influence emotional states; folks with higher self-efficacy area unit probably to own reduced stress levels and lower risks of depression than those with low self-efficacy. Thus, self-efficacy has emerged as an important think about polygenic disorder self-management behaviours [3].

Instruments that live self-efficacy area unit broadly speaking categorised into general and specific kinds of scales, Some researchers read self-efficacy as an additional trait-like general construct, relating one's overall ability to perform across a range of various things. Instruments developed supported this angle area unit general self-efficacy scales. Others state that self-efficacy judgments area unit specific to behaviours and therefore the things during which those behaviours occur; that's, folks understand completely different levels of capability of playacting specially domains or things of functioning. Instruments developed from this conceptualization area unit specific self-efficacy scales. Patients with polygenic disorder should perform explicit tasks to regulate their blood sugar so as to forestall complications. They'll possess a high self-efficacy with relevance taking medication, however a coffee self-efficacy relating to exercise. Scales that area unit specifically designed for patients with polygenic disorder area unit so additional acceptable for measure their self-efficacy [4].

There are previous tries in Chosen to develop a particular scale measure the perceived self-efficacy of polygenic disorder self-management, however they need made solely a primitive stage of scale development; the things were derived from the literature while not corroborative their psychology properties. Applying such instruments within the studies for clinical interventions could threaten the liableness of their outcomes. The polygenic disorder Management Self-Efficacy Scale (DMSES) may be a specific-type instrument that was developed by the members of the International Partnership in Self-Management and authorization. Its psychology properties were found to be acceptable for populations with sort two polygenic disorders in many countries: European country, UK, Australia, Turkey, and Taiwan. However, these psychology studies had method and applied math issues associated with factors like sample size, item redundancy, and therefore the underlying constructs. With these problems in mind, the aims of the current study were to perform a culture-sensitive translation of the DMSES so measure the psychology properties of the translated scale in an exceedingly Korean population with sort two polygenic disorders [5].

## Materials and Method

The English-language version of the DMSES was translated into Korean employing a forward and backward translation technique, supported the rules of Brislin. A bilingual caregiver and a commoner severally translated a

people version into Korean victimisation linguistics equivalence. Associate degree skilled panel of 3 bilinguals checked the 2 potential Korean versions and achieved an agreement on a Korean version. The Korean version was then severally translated back to English by another 2 bilinguals. The panel checked the back-translated versions against the first English version. Any discrepancies between the translated and original English versions were either confirmed by one in every of the first developers alternatively an agreement was reached by the panel. The preliminary Korean version was so made, and therefore the Korean version was finalized when one academic majored in Korean literature had reviewed its synchronic linguistics [6].

Five specialists (one Dr., one academic in nursing, and 3 polygenic disorder educators) were concerned in assessing the content validity of the ultimate Korean version of the DMSES (K-DMSES). These specialists were asked to rate every item of the preliminary K-DMSES whether or not they thought of it "essential," "useful, however not essential," or "not essential". Additionally, they were asked to answer open queries relating to whether or not there have been any ambiguous words, jargon, or value-laden words and whether or not there have been things that required to be changed [7].

This was a method study to assess the psychology properties of the K-DMSES. A convenience sample of 440 patients with sort two polygenic disorders was recruited from 2 university hospitals in Asian nation. This sample size glad the necessity that a minimum of seven times the overall range of things is required for psychology tests. The inclusion criteria for the participants were being waged a minimum of twenty years, being diagnosed with polygenic disorder sort two, and being articulate within the Korean language. The participants were asked to sign a consent type and complete a package of questionnaires. Of these, seventy got associate degree envelope containing the K-DMSES form for the assessment of test-retest liableness. They were asked to require it home and complete it ten days later; a measure of 1-2 weeks between perennial measures is usually suggested. Every participant was asked to post the come envelope containing the finished form close to home [8].

## Discussion

This study translated the DMSES into Korean and evaluated its psychology properties in Korean sort two polygenic disorder patients. The psychology properties of the culturally tailored K-DMSES were satisfactory. The overall range of things within the K-DMSES was sixteen that is fewer than altogether alternative language versions of the DMSES aside from the UK-English version that includes fifteen things. A shorter K-DMSES could represent a smaller burden for patients with sort two polygenic disorder, rendering it additional possible to use in observe [9].

Translation and back-translation of a form needs not solely literal translation however additionally social/cultural adaptation, during this study, items eighteen of the K-DMSES was modified to fourfold a year to observe my polygenic disorder," supported the rules of the Korean polygenic disorder Association. An identical amendment was additionally created within the Taiwanese/Chinese version, in accordance with Taiwanese laws of the Bureau of National insurance. Within the United Kingdom version, the item was deleted supported the National Health Service (such as general practitioner care system within the UK). The inclusion or phraseology of item eighteen could rely on the prevailing health system or health policy within the country during which the form are going to be used [10].

Item redundancy on the DMSES is consistently being mentioned. Powerfully correlate things (items 2/3, 8/11, 13/14, 13/15 and 14/15) within the Australian-English version, additionally noted duplicated things (items 4/5, 5/10, 13/14, and 13/15) within the content validity of the UK-English version. Similarly, redundancy of things 4/5, 13/14, and 15/16 was found within the K-DMSES for the content validity and therefore the zero-order matrix of things. If things of a scale area unit powerfully correlate, it's suggested that the redundant ones ought to be born. This prevents a method drawback with multiple regression. A limitation of this study is that the lack of a responsiveness check to sight changes once patients improve or deteriorate. A longitudinal study ought to so be conducted that assesses the K-DMSES immeasurable patients in whom changes area unit expected to occur [11].

Regarding test-retest liableness, the measure between perennial measures ought to be even. In general, it's desirable for the measure to be sufficiently long to forestall recall, however short enough thus on make sure that a clinical amendment has not occurred. Various time intervals are applied in liableness testing of the DMSES: ten days (present study), 2 weeks, 3 weeks, 4 weeks, and five weeks. One empirical study found no vital variations within the test-retest liableness of health-status instruments once time intervals of two days and a couple of weeks were applied. Additional studies of the best measure for the test-retest liableness of the DMSES area unit needed [12].

## Conclusion

The K-DMSES was subjected to culture-sensitive translation and its psychology properties were valid in Korean sort two polygenic disorder patients. The underlying construct of the K-DMSES includes four subscales: nutrition (items four, 9, 10, 14, 16, and 17), physical exercise/body weight (items half-dozen, 8, 11, and 12), medical treatment (items eighteen, 19, and 20), and glucose (items one, 2, and 3). The K-DMSES incontestable sensible content validity, factorial constructs validity, hypothesis testing construct validity, internal consistency liableness, and test-retest liableness. This instrument is prepared to be used in each analysis and observe.

## Conflict of Interest

None

## Acknowledgement

None

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