

摘要

近幾年來，國人自殺死亡率不斷提高，且自殺死亡從 1997 年起已連續多年列於國人十大死亡原因之一，所以自殺防治工作刻不容緩。本研究採用自殺防治中心在桃園縣六家居家服務單位(龍祥、中國、仁愛、紅十字、家輔及寬福)所做之問卷調查資料，目的在於找出何種特性者，BSRS5 (The Five-Item Brief Symptom Rating Scale)分數及自殺意念分數可能較高。本研究屬於時序性追蹤資料，自民國 96 年 5 月份起，由居服人員針對受測對象進行訪談，大約每隔兩週收集一次，總共進行四次。

針對問卷進行基本敘述性統計、單項排名分析以及交叉分析後發現，在人口特質方面，男女性比例相當，年齡層主要皆在 65~84 歲，教育程度以不識字及國小為主；在 BSRS5 五題排名方面，以第一題「睡眠困難(難以入睡或早醒)」的平均分數最高，第四題「覺得比不上別人」平均分數最低；由交叉分析的結果發現身體狀況為一個重要的變數，身體狀況差的人 BSRS5 總分 6 分以上或自殺意念 2 分以上明顯較多。

對資料配適廣義估計方程式及 Alternating Logistic Regressions 的結果，發現在反應變數為 BSRS5 總分時，女性、身體狀況差及曾經看過精神科者 BSRS5 分數達到 6 分以上的可能性較高。若反應變數為自殺意念時，無論是利用廣義估計方程式或 Alternating Logistic Regressions，從模型配適的結果發現只有 BSRS5 的效應顯著。不管利用 BSRS5 總分或是各題分開來看，BSRS5 對自殺意念是一個相當有效的檢測工具，BSRS5 分數愈高則自殺意念 2 分以上的機會也愈高。此外利用多層結構分析方法配適廣義估計方程式，針對 BSRS5 與受測次數間的關聯性分析，發現與配適傳統 unstructured 相關性矩陣的估計結果差異不大，但是可以減少許多參數估計，並且在電腦計算時間上是較快速的。

關鍵字：BSRS5、自殺意念、時序性追蹤資料、廣義估計方程式、Alternating Logistic Regressions



Abstract

In Taiwan, suicide has been among the top ten causes of death since 1997, and suicide prevention has thus attracted much attention since. Using the data provided by Taiwan Suicide Prevention Center (TSPC), this study is aimed to find out possible personal characteristics that might have some impacts on the BSRS5 (the Five-Item Brief Symptom Rating Scale) and suicide ideation scores. The data come from a longitudinal study in which subjects from six elderly home service centers in Taoyuan County, Taiwan were visited four times between May and July, 2007, about two weeks between each visit.

The total number of subjects is 1981. The proportions of male and female are nearly the same, the age range is from 65 to 84, and most of them have only an elementary school degree. Preliminary analyses indicate that among the five items in BSRS5, insomnia (the first item) is ranked the highest, and inferiority (the fourth item) is the lowest. In addition, health status is highly correlated to the BSRS5 and suicide ideation scores, the worse the health status, the higher the BSRS5 and suicide ideation scores.

Fitting the data with Generalized Estimating Equation (GEE) and Alternating Logistic Regressions models with respect to the BSRS5 score, we further find that female, those who have bad health status, and those who have ever consulted a psychiatrist have higher probability that the BSRS5 score is greater than 6. As far as the suicide ideation score is concerned, the BSRS5 score is the only covariate that is statistically significant, an indication that BSRS5 is a useful tool for screening subjects at risk of committing suicide. While the conclusions stay the same whether the data are analyzed through GEE with commonly used unstructured correlation structure or newly developed multiblock and multilayer correlation structure, the

latter approach reduces the computer time significantly.

Key words : BSRS5 、 suicide ideation 、 longitudinal data 、 Generalized Estimating Equation 、 Alternating Logistic Regression

