

Appropriately reporting results using the medication subscale of the summary of diabetes self-care activities measure: A comment on Dasappa *et al.* (2017)

Dear Editor,

It is well established that poor adherence to antidiabetic medications in diabetics causes deterioration of glycemic control and accelerates the onset and progression of microvascular and macrovascular complications of diabetes.^[1] The study by Dasappa *et al.* further corroborates that diabetics in socioeconomically disadvantaged communities are at the risk of medication nonadherence.^[2] The researchers utilized the medication subscale of the Summary of Diabetes self-care activities measure (SDSCA-MS) developed by Toobert *et al.* for assessing medication adherence.^[3] The scale includes 2 items which query patients regarding their medication intake behavior during the previous 7 days from the day of assessment. The first item of the SDSCA-MS assesses the number of days on which the patient took his prescribed (antidiabetic) medication or insulin, and the second item assesses the number of days on which the patient took the correct number of pills. The response in both the items will yield a number ranging from 0 to 7. The SDSCA-MS score in the study sample should subsequently be reported as mean and standard deviation in the following manner:

1. The SDSCA-MS score can be reported only for the first item (1 item SDSCA-MS) but preferably by averaging responses to both the items (2 item SDSCA-MS)^[3]
2. An alternative validated method recommended by Mayberry *et al.* is to calculate the 1 and 2 item SDSCA-MS scores by averaging responses to the first item and both items, respectively, for each of the antidiabetic medications in the prescribed regimen^[4]
3. Observations from literature show that SDSCA-MS scores have been dichotomized into categorical outcomes with a score of <7 defined as nondaily medication adherence while a score of ≤5 signifying <80% adherence defined as nonadherence.^[5]

In the present study, Dasappa *et al.* have not reported SDSCA-MS scores in terms of continuous outcomes and arbitrarily defined a diabetic patient who misses even a single dose of his antidiabetic during the previous 7 days as not having good adherence. They further hypothesize that the subjects may be nonadherent due to their inability to afford the medication which cannot be inferred from their observations. This is because patients with SDSCA-MS score of 6 are more likely to be missing medications due to forgetfulness or carelessness compared to those reporting a score of 0 which rather reflects lack of medication possession due to possible inability to afford medications. However, the dichotomous outcome reported in this study classifies a patient reporting an SDSCA-MS score of 0 and another of 6 in the same category.

In conclusion, reporting SDSCA-MS scores as continuous outcomes (mean and standard deviation) allow a more accurate estimation of the prevailing level of medication adherence in the study population.

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Conflicts of interest

There are no conflicts of interest.

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