### Introduction

Adolescents in South Africa are susceptible to substance use due to the ease of access to and constant use of drugs by their peers. Various factors have been identified as possible contributors to the onset of adolescent substance use. The South African Substance Use Contextual Risk Instrument (SASUCRI) was developed for the purpose of identifying factors leading to adolescent substance use.

Through the identification of these factors, appropriate preventative interventions can be informed. Early intervention is important because of the highly addictive nature of the drugs being used by adolescents.

The theoretical framework that guided the study was that of Bias and Equivalence.

### Objectives

The purpose of this study was to assess the scale equivalence of the English version of the SASUCRI across the English and isiXhosa mother tongue speakers.

The study aimed to explore the language bias across the first and second language English speaking samples.

### Methods

The study employed a differential research design. The total sample was 674 consisting of 420 English and 254 isiXhosa language speakers from low socio-economic status communities in Cape Town, South Africa.

The study employed several techniques including the Hotelling's T square test to assess significant differences of means between the groups. The equality of reliabilities to assess the significance of differences between the scale reliabilities. The Tucker's Phi coefficient of congruence to assess the congruence of the construct across the two groups. Logistic regression to detect item bias in the scales found to be inequivalent across the two language groups.

### Results

Using the three techniques several of the scales were found to be inequivalent across the two language groups. In assessing the mean differences, the results revealed that there were significant mean differences, with the isiXhosa-speaking group performing significantly lower than the English-speaking group for most of the scales.

Internal consistency was also generally lower for the isiXhosa group. The structural congruence revealed that there was incongruence at some level between the two language groups for most of the scales with an exception of two of the twenty one scales as indicated in the tables below.

### Results Continued

The study found that certain items of the English version of the instrument were biased against the second language speakers. The statistically significant result (p<0.01) in the change in the chi-square from model 1 to model 3 shows that 14 items were identified as presenting with DIF as indicated in the tables below.

The 14 items identified showed effect sizes that were between negligible and moderate, with only 4 items 10, 27, 49 and 92 showing a moderate effect size.

### Conclusion and Recommendations

It can thus be concluded that the measure cannot be accepted as structurally equivalent across the two groups. It is clear that bias exists in the majority of the scales of the SASUCRI and that this version is thus not applicable for an isiXhosa speaking sample.

The study recommends that the instrument be adapted for this group in order to accurately assess the risk factors. Tailored interventions can then be developed for the different groups based on the information yielded by the different versions of the instrument.

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