**Supplemental 3**

*Detailed results on effect of adaptation on psychometric properties*

**RESULTS**:

Four (4/31, 12.9%) studies found that removing suicidal ideation questions resulted in high reliability, cross-cultural validity, and construct validity in their adapted scales (Almeida et al., 2014; Ashaba et al., 2019; Harry & Crea, 2018; Schantz et al., 2017). Scales that removed items relating to the concept of hope also had evidence for reliability, cross-cultural validity, construct validity, specificity, and discrimination in (3/31, 9.7%) studies (Baron et al., 2017; Kilburn et al., 2018; McNamara et al., 2014).

The concept of loneliness was addressed by 3 studies, who added it to increase internal constancy and construct validity (Armenta et al., 2014; Ashaba et al., 2019; Haroz et al., 2017). Scales with added items related to somatic difficulties had good reliability, construct validity, cross-cultural validity, and incremental validity in 6 studies (Armenta et al., 2014; Ashaba et al., 2019; Gelaye et al., 2013; Haroz et al., 2017; Kilburn et al., 2018; McNamara et al., 2014). Items on anger were added by 4 studies, which resulted in strong metrics for reliability, criterion validity, incremental validity, NPV, and sensitivity (Ashaba et al., 2019; Esler et al., 2008; Hackett et al., 2019; Haroz et al., 2017).

Four studies found strong psychometric properties of scales that were modified to fit a low-literacy or rural group (Campbell et al., 2008; Gallis et al., 2018; McNamara et al., 2014; Schantz et al., 2017) and 2 studies incorporated local idioms to increase understanding (Gelaye et al., 2013; Kaaya et al., 2008). The result was high reliability, criterion validity, construct validity, sensitivity, and NPV. Changes to the protocol of administering the psychometric in 1 scale yielded high reliability, sensitivity, specificity, and NPV (Marley et al., 2017). Scales that were translated often had high reliability, criterion validity, construct validity, NPV, sensitivity, specificity, discrimination, but not PPV.

**DISCUSSION**:

There was heterogeneity in the methods taken by the studies to adapt their scale. These processes were related to the psychometric performance of the overall scales (Table 2).

### Addition or deletion of items

Fourteen studies added or removed items based on revision of linguistic equivalences and cultural relevance. Of these, 4 studies modified *suicidal ideation* questions either by removing it completely or removing the item and replacing it with 2 separate questions (Almeida et al., 2014; Ashaba et al., 2019; Harry & Crea, 2018; Schantz et al., 2017). *Hope* was another concept that was removed by 3 studies. This term was found to not be sufficiently represent positive affect to the Indigenous group (Baron et al., 2017; Kilburn et al., 2018; McNamara et al., 2014).

Through discussions, 3 studies added the Indigenous equivalence of a *loneliness* question as this was important to Indigenous representations of depression (Armenta et al., 2014; Ashaba et al., 2019; Haroz et al., 2017). *Somatic difficulties* were also found to be important to the Indigenous context and were thus incorporated the modified scales of 7 studies (Armenta et al., 2014; Ashaba et al., 2019; Gelaye et al., 2013; Haroz et al., 2017; Haroz et al., 2014; Kilburn et al., 2018; McNamara et al., 2014). Finally, *anger* was a concept that was important to accurately measuring depression amongst Indigenous peoples and was added by 4 studies (Ashaba et al., 2019; Esler et al., 2008; Hackett et al., 2019; Haroz et al., 2017).

### Simplified language

Other than modifications to achieve cultural equivalence or relevance, items were modified to fit the rural or socioeconomic context. As such, simplifying language was seen as a culturally-safe method. Four studies modified words or sentence structures that were not sensitive to a low-literacy group or rural Indigenous population; these were either removed or replaced by simpler language (Campbell et al., 2008; Gallis et al., 2018; McNamara et al., 2014; Schantz et al., 2017). To further increase understanding, 2 studies added local idioms for depression as replacements (Gelaye et al., 2013; Kaaya et al., 2008).

### Fitting the cultural context

Different modes of administering scales increased understanding and cultural sensitivity. One study achieved this by changing the scale administration process, using a visual scale and developing a culturally safe space to answer questions (Marley et al., 2017). Another way of fitting the scale to the cultural context was to translate the scale to the local Indigenous language or used an Indigenous mode of phrasing, which made the scale more understandable, accessible, and acceptable. Nineteen studies did this, which provided more accurate estimates of depression prevalence in the population (Ashaba et al., 2019; Baron et al., 2017; Bass et al., 2008; Bougie et al., 2016; Caneo et al., 2020; Chapleski et al., 1997; Denckla et al., 2017; Ekeroma et al., 2012; Esler et al., 2007; Fernandes et al., 2011; Gallis et al., 2018; Ganguli et al., 1999; Gelaye et al., 2013; Husain et al., 2006; Kilburn et al., 2018; Marley et al., 2017; Sarkar et al., 2015; Schantz et al., 2017; Tiburcio Sainz & Natera Rey, 2007).

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