The Worry About Sexual Outcomes (WASO) Scale was developed to assess adolescents’ worry regarding outcomes of risky sexual behavior (i.e., STIs/HIV infection and unintended pregnancy; Sales et al., 2008).

Description
The WASO was developed as part of an NIMH-funded intervention grant (Sales et al., 2008). Domains pertinent to worry about the outcomes of risky sexual behavior were selected based on a review of the empirical literature. Three topics were frequently noted in the literature with regard to worry pertaining to the sexual outcomes of risky sexual behavior: (a) pregnancy, (b) STI, and (c) HIV. Focus groups of African American adolescent females were conducted to verify that these topics were relevant in their sexual relationships. Eighteen items were created to assess worry in these domains. Health educators assessed face validity of the items. The measure was pilot-tested on 15 African American adolescent females 14 to 18 years of age. Based on their suggestions, items were revised to enhance reading comprehension. Items that were highly correlated and thought to assess the same construct, as well as items that decreased the Cronbach’s alpha below .90, were deleted, leaving a 10-item scale consisting of two subscales: STI/HIV Worry (8 items) and Pregnancy Worry (2 items). Data from a longitudinal evaluation study were used to validate the measure (Sales et al., 2008).

Though the WASO was designed for adolescent females and validated with an African American female sample, the items are likely more broadly applicable to individuals of other racial or ethnic backgrounds and other age groups, and to males.

Response Mode and Timing
A single stem is used for all items, “In the past 6 months, how often did you worry that . . .” Each item requires a response based on a 4-point Likert-type scale: 1 (Never), 2 (Sometimes), 3 (Often), and 4 (Always). The scale typically takes less than 5 minutes to complete.

Scoring
All items are coded so that higher values indicate more frequent worrying about these health outcomes. Scores can be calculated in two ways: (a) items are summed to create a total scale score for the full 10 items, or (b) items are summed to create two subscale scores: STI/HIV Worry (8 items) and Pregnancy Worry (2 items). Scores on the total scale range from 10 to 40. Scores on the STI/HIV Worry subscale range from 8 to 32. Scores on the Pregnancy Worry subscale range from 2 to 8.

The mean score for participants in our validation sample for the total scale was 16.81 (SD = 6.43). Participants in the validation sample had a mean score of 15.52 (SD = 5.96) for the STI/HIV Worry subscale and a mean score of 4.43 (SD = 2.03) for the Pregnancy Worry subscale (Sales et al., 2008).

Reliability
Stability of the measure was assessed by Pearson correlation. Because it has been suggested that the length of time between reliability assessments mirrors the length of time in intervention studies (Gliner, Morgan, & Harmon, 2001), measurement stability was assessed with 6 months between administrations. Baseline scores on the full WASO (all 10 items) were significantly correlated with scores at 6-month follow-up (r = .38, p < .01) and with scores at 12-month follow-up (r = .27, p < .01). Further, scores at 6-month follow-up were significantly correlated with scores at 12-month follow-up (r = .44, p < .01; Sales et al., 2008).

Validity
The WASO was correlated with other related constructs in the predicted directions (Sales et al., 2008). Specifically, frequency of worry about sexual outcomes was negatively associated with sexual communication self-efficacy (with new partner and steady partner), frequency of sexual communication with partner (Milhausen et al., 2007), attitudes about condom use (St. Lawrence et al., 1994), and

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Adolescents social support (Zimet, Dahlem, Zimet, & Farley, 1988). Additionally, it was positively associated with barriers to condom use (St. Lawrence et al., 1999), condom negotiation, external locus of control, and depression (Melchior, Huba, Brown, & Reback, 1993). The STI/HIV Worry subscale correlations mirror the findings for the overall scale score. The Pregnancy Worry subscale was negatively associated with frequency of sexual communication with partner (Milhausen et al., 2007) and positively associated with barriers to condom use (St. Lawrence et al., 1999), external locus of control, and depression (Melchior et al., 1993).

The WASO was negatively correlated with condom use at last vaginal sex with steady partners, condom use during the previous 30 days with steady partners, and condom use with steady partner over the previous 6 months. Again, the STI/HIV Worry subscale mirrored the findings for the overall scale score. The Pregnancy Worry subscale was also negatively correlated with aforementioned condom use variables. Additionally, Pregnancy Worry scores were positively correlated with frequency of vaginal intercourse with steady and nonsteady partners in the previous 30 days. The correlations were all significant and effect sizes were small to moderate (Cohen, 1988).

Other Information
The WASO is a brief, self-administered behavioral scale measuring adolescents’ worry regarding outcomes of risky sexual behavior (i.e., STIs/HIV infection and unintended pregnancy), suitable for low-literate samples (requiring a fourth grade reading level). Researchers may find the WASO particularly useful in sexual health education interventions for assessing worry of STI/HIV and pregnancy pre- and postintervention to evaluate intervention efficacy. The authors would appreciate receiving information about the results obtained with this measure.

References

**Exhibit**

**Worry About Sexual Outcomes Scale**

<table>
<thead>
<tr>
<th>In the past 6 months, how often did you worry that . . .</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>. . . you might get the HIV virusa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . you might already have the HIV virus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . your sex partner may be infected with the HIV virusa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . your partner may become infected with the HIV virusa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . you might get an STIa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . you might already have an STIa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . your partner may be infected with an STIa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . your partner may become infected with an STIa</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . you might get pregnantb</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>. . . you might already be pregnantb</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

aSTI/HIV Worry subscale item; bPregnancy Worry subscale item.