**Exploratory and Confirmatory Factor Analysis**

We assessed the structure of this modified CADRI scale with both an Exploratory (EFA) and confirmatory factor analysis (CFA) to the best fitting model. Specifically, we assessed two models, 1) the original structure of the CADRI and 2) one in which physical and threatening items were combined into the same latent construct. One of the leading justifications for assessing this combined structure of physical and threatening teen dating violence together is from preliminary correlations among items. We found consistently high correlations among the physical and threatening items (*r* range .73-.89) Further, upon utilization of an exploratory factor analysis using Geomin rotation with nominal indicators, model comparison between the four and five factor solutions revealed that, among this sample, no additional information was added with a fifth latent factor. Items that loaded significantly on the fifth factor were not theoretically sound (e.g., items from multiple scales, and had relatively low loadings (e.g., below factor loading of 0.4). Upon further investigation into the four factor solution, all of the physical and threatening items loaded on the same factor (see Supplemental table 1 below). Finally, the scree plot (see Supplemental Figure 1) indicates a four factor solution based on Eigenvalues. This structure was then utilized in a CFA to determine model fit. Results indicate excellent model fit for the four factor solution (CFI = .970, TLI = .967, RMSEA = 0.02, . Exact procedures were used for both victimization and perpetration. The above references perpetration item level analysis. The four factor solution for the victimization CFA also resulted in excellent model fit (CFI = .961, TLI = .956, RMSEA = 0.03, .

Supplemental Figure 1. Scree plot from exploratory factor analysis for CADRI scale.

|  |  |  |
| --- | --- | --- |
| Factor loadings from exploratory factor analysis for CADRI four factor solution. | | |
|  | Loadings  TDV  perpetration | Loadings  TDV  Victimization |
| **Factor 1: Sexual TDV** |  |  |
| 1. Threatened in an attempt to have sex with (him/her, me) | .677 | .754 |
| 2. Forced (me, him/her) to have sex when (I, he/she) didn’t want to | .945 | .720 |
| 3. Touched (me, him/her) sexually when (I, he/she) didn’t want (him/her, me) to | .712 | .635 |
| 4. Kissed (me, him/her) when (I, he/she) didn’t want (him/her, me) to | .473 | .620 |
| **Factor 2: Relational TDV** |  |  |
| 6. (I, he/she) Tried to turn my friends against (me, him/her) | .628 | .828 |
| 7. (I, he/she) said things to my friends about (me, him/her) to turn them against | .579 | .950 |
| 8. (I, he/she) spread rumors about (me, him/her) | .655 | .475 |
| **Factor 3: Verbal TDV** |  |  |
| 9. (I, he/she) said things to make (me, him/her) angry | .728 | .584 |
| 10. (I, he/she) brought up something bad (I, he/she) had done in past | .828 | .787 |
| 11. (I, he/she) did something to make (me, him/her) feel jealous | .590 | .727 |
| 12. (I, he/she) spoke to (me, him/her) in a hostile or mean tone | .492 | .621 |
| 13. (I, he/she) insulted (me, him/her) with put-downs | .563 | .426 |
| 14. (I, he/she) accused (me, him/her) of flirting with another guy/girl | .438 | .462 |
| 15. (I, he/she) threatened to end the relationship | .732 | .647 |
| 16. (I, he/she) blamed me for the problem | .785 | .782 |
| 17. (I, he/she) made fun of (me, him/her) in front of others | .830 | .733 |
| 18. (I, he/she) kept track of who (I, he/she) was with and where (I, he/she) was | .675 | .610 |
| **Factor 4: Physical/Threatening TDV** |  |  |
| 19. (I, he/she) threatened to hurt (me, him/her) | .615 | .444 |
| 20. (I, he/she) threatened to hit me or throw something at (me, him/her) | .808 | .722 |
| 21. (I, he/she) slapped me or pulled (my, his/her) hair | .734 | .898 |
| 22. (I, he/she) pushed, shoved, or shook (me, him/her) | .637 | .446 |
| 23. (I, he/she) kicked, hit, or punched (me, him/her) | .795 | .837 |
| 24. (I, he/she) threw something at (me, him/her) | .913 | .776 |
| 25. (I, he/she) destroyed or threatened to destroy something (I, he/she) valued | .959 | .922 |
| 26. (I, he/she) tried to frighten (me, him/her) on purpose | .805 | .740 |

Below we display several plots for descriptive purposes only. These plots display specific rates of violence by the three emergent classes.

**Supplemental Figure 2a & 2b. Sexual Violence Victimization and Perpetration Rates for emergent alcohol and APD classes.**

*Note*: VICT = victimization; PERP = perpetration; T1 = time 1; T2 = time 2.

**Supplemental Figure 3. Teen Dating Violence Physical/Threatening Victimization and Perpetration Rates for emergent alcohol and prescription drug use classes.**

*Note*: TDV = teen dating violence; VICT = victimization; PERP = perpetration; T1 = time 1; T2 = time 2.

**Supplemental Figure 4a and 4b . Teen Dating Violence Relational Victimization and Perpetration Rates for emergent alcohol and prescription drug use classes.**

*Note*: TDV = teen dating violence; VICT = victimization; PERP = perpetration; T1 = time 1; T2 = time 2.

**Supplemental Figure 5. Teen Dating Violence Verbal Victimization and Perpetration Rates for emergent alcohol and prescription drug use classes.**

*Note*: TDV = teen dating violence; VICT = victimization; PERP = perpetration; T1 = time 1; T2 = time 2.

**Supplemental Figure 6. Teen Dating Violence Sexual Victimization and Perpetration Rates for emergent alcohol and prescription drug use classes.**

*Note*: TDV = teen dating violence; VICT = victimization; PERP = perpetration; T1 = time 1; T2 = time 2.