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| **Domain:** | Tobacco Regulatory Research - Host: Social/Cognitive |
| **Measure:** | Distress Tolerance |
| **Definition:** | These questions address persistence under psychological distress. |
| **Purpose:** | To determine persistence of doing frustrating task. |
| **Essential PhenX Measures:** | Current Age Gender Tobacco - Smoking Status |
| **Related PhenX Measures:** | Peer/Partner Substance Use and Tolerance of Substance Use |
| **Keywords:** | Distress tolerance, Mirror Tracing Persistence Task, MTPT-C, personality, distress, Tolerance, distress tolerance |

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| **Protocol Release Date:** | February 20, 2015 |
| **PhenX Protocol Name:** | Distress Tolerance |
| **Protocol Name from Source:** | The Computerized Mirror Tracing Persistence Task (MTPT-C) |
| **Description:** | The Computerized Mirror Tracing Persistence Task (MTPT-C) is an automated version of the original Mirror Tracing Persistence Task (Quinn et al., 1996), which requires the construction of a mirror box and multiple copies of polygons to be traced. The MTPT-C simplifies the administration and scoring of this task.  In this task, participants are required to trace a red dot along the lines of a geometric shape (e.g., star) using the computer’s mouse. However, the mouse moves the red dot in the reverse direction. Each time the participant moves the mouse out of the lines or hesitates for more than 2 seconds, a buzzer sounds, and the dot moves back to the beginning. Three progressively more difficult shapes are used. The first two rounds last 1 minute each, while the third round of the MTPT-C can last up to 7 minutes. Participants may terminate the task at any point during the third round by pressing on the space bar. Distress tolerance is measured by the latency in seconds to task termination. Additionally, the number of errors per second (i.e., number of times the participant has to return to the starting position during the task, divided by the task time) is recorded to control for effects of skill on persistence. |
| **Specific Instructions:** | User can download the program for this task at:  [caperlab.net/task-downloads](http://caperlab.net/task-downloads) |
| **Protocol:** | See above; online download of the program:  [caperlab.net/task-downloads](http://caperlab.net/task-downloads) |
| **Selection Rationale:** | Measure of distress tolerance, a personality trait that appears to be related to smoking and tobacco use and behaviors. |
| **Source:** | Computerized Mirror Tracing Persistence Task (MTPT-C) Center for Addictions, Personality, and Emotion Research (CAPER) website |
| **Life Stage:** | Adult |
| **Language:** | English |
| **Participant:** | Adults |
| **Personnel and Training Required:** | None |
| **Equipment Needs:** | Computer with a mouse. Instrument is available online. |
| **General References:** | Original Mirror Tracing Persistence Task (MTPT):  Quinn, E. P., Brandon, T. H., & Copeland, A. L. (1996). Is task persistence related to smoking and substance abuse? The application of learned industriousness theory to addictive behaviors. *Experimental and Clinical Psychopharmacology*, *4*, 186-190.  Validity of the MTPT:  Brandon, T. H.,Herzog, T. A.,Juliano, L., Irvin, J. E., Lazev, A., & Simmons, V. N. (2003). Pretreatment task-persistence predicts smoking cessation outcome.*Journal of Abnormal Psychology*, *112*, 448-456.  Steinberg, M. L., Williams, J. M., Gandhi, K. K., Foulds, J., Epstein, E. E., & Brandon, T. H. (2012). Task persistence predicts smoking cessation in smokers with and without schizophrenia*. Psychology of Addictive Behaviors,* *26,*850-858.  Computerized Version:  Strong, D. R., Lejuez, C. W., Daughters, S., Marinello, M., Kahler, C. W., & Brown, R. A. (2003). *The computerized mirror tracing task, version 1.* Unpublished manual.  Program available for download: [www.addiction.umd.edu/research.htm](http://www.addiction.umd.edu/research.htm)  Predictive validity, but not with smoking:  Daughters, S. B., Lejuez, C. W., Bornovaolova, M. A., Kahler, C. W., Strong, D. R., & Brown, R. A. (2005). Distress tolerance as a predictor of early treatment dropout in a residential substance abuse treatment facility. *Journal of Abnormal Psychology*. *114*, 729-734. |
| **Mode of Administration:** | Interviewer-administered questionnaire |
| **Derived Variables:** | None |
| **Requirements:** | |  |  | | --- | --- | | **Requirement Category** | **Required** | | Major equipment | No | | Specialized training | No | | Specialized requirements for biospecimen collection | No | | Average time of greater than 15 minutes in an unaffected individual | No | |
| **Annotations for Specific Conditions:** |  |
| **Process and Review:** | This section will be completed when reviewed by an Expert Review Panel. |