Enhancing Psychology Research through Advanced Communications Technology

Our Purpose
To investigate the patterns and accuracy of retrospective recall of affect in the clinically depressed

Ethics
Certification: All members on the team completed the "Human Participants Protection Education for Research Teams" course offered online by the National Cancer Institute. After completing the program, which educated the team on the current standards of ethical research methods, all team members were eligible to participate as research assistants in this study.

Informed Consent: All participants were given a consent form informing them of their rights and what was expected of them for their participation in the study. No participation or exchange of personal information on any level was allowed until the volunteer gave full consent.

Personal Information: Participants were not required to provide any information that did not have a specific purpose to the research study. All personal information given to the research team was locked up in the Mood Research Lab. Participants were assigned a code number as soon as they were accepted into the study; this code was then their only form of identification.

Acknowledgements
The team members of IPRO 306 would like to thank the following people who contributed to the success of the project. We would first like to thank our advisors, Professors Ben-Ze’ev and Young, for contributing their time, knowledge and support to the project. We would also like to greatly thank Tom Jacobius from the IPRO Office for his generous contribution of the PDA units. Without these PDA’s the completion of our study would not have been possible. Also, we could not have completed the study without all of our willing volunteers. Additionally, the Office of Psychology was very supportive and helpful. Thank you, once again.

The Team
Tarek Abou-Nemeh
Krystin Hernandez
Vladislav Vilenchick

Tina Chiu
Alice Jacob
Chelsea Miller

Stephanie Walter
Kevin Franke
Chris Jones

Friday, April 27th, 2007

Faculty Advisors: Dror Ben-Ze’ev and Michael Young

Spring IPRO Day
**Background**

Major depressive disorder is the “common cold” of psychological disorders. According to the DSM-IV-TR (Diagnostic and Statistical Manual of Mental Disorders Fourth Edition), it is an extremely depressed mood state that lasts at least 2 weeks with symptoms such as, diminished interest or pleasure in almost all activities, significant weight change, insomnia or hypersomnia (excessive sleep), psychomotor agitation or retardation, fatigue or loss of energy everyday, feelings of worthlessness or inappropriate guilt, diminished ability to concentrate or indecisiveness, recurrent thoughts of death.

**Goals**

- Recruit participants from Chicago area
- Collect usable data from each eligible volunteer
- Improve and maintain lab efficiency
- Organize, enter, and analyze
- Interpret results and draw conclusions

**Accomplishments**

During this semester, we accomplished all of our intended goals. We were able to recruit the necessary amount of people, collect and enter their data and obtain useful, practical results. As shown in the obstacles section, the team effectively used teamwork and communication to overcome any problem we faced.

**Obstacles**

<table>
<thead>
<tr>
<th>OBSTACLE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team member schedule conflicts</td>
<td>3 hr/wk shift system</td>
</tr>
<tr>
<td>Team members only specialized in some tasks</td>
<td>Train and evaluate team members’ competency in all areas</td>
</tr>
<tr>
<td>Malfunctioning PDAs</td>
<td>PDA troubleshooting sheet</td>
</tr>
<tr>
<td>Bad Weather</td>
<td>Just hope for the best…</td>
</tr>
<tr>
<td>Space Limitations</td>
<td>Get more space</td>
</tr>
<tr>
<td>Participant Punctuality/No-Shows</td>
<td>Reminder phone calls</td>
</tr>
<tr>
<td>Participants with disabilities</td>
<td>Accommodating their needs</td>
</tr>
</tbody>
</table>

**Results**

Subteam accomplishments greatly contributed to the following study results.

The chart below, “Number of Individuals in Each Study Phase” (pictured below left) shows the number of people that began our screening process and the number of people that were eliminated through each stage of the process.

The second chart below, “Mean Affect Ratings Across Measures” (pictured below right) demonstrates that in both groups, control and depressed, for both positive and negative affect, the participants exaggerated their emotions during recall.

**Mean Affect Ratings Across Measures**

Weekly Retro Weekly Retro

Positive Affect

Negative Affect

Control

Depressed

<table>
<thead>
<tr>
<th>Positive Affect</th>
<th>Negative Affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Depressed</td>
</tr>
<tr>
<td>3.59</td>
<td>1.99</td>
</tr>
<tr>
<td>3.01</td>
<td>2.33</td>
</tr>
<tr>
<td>2.55</td>
<td>1.23</td>
</tr>
</tbody>
</table>

**Experience Sampling Method**

ESM uses an electronic signaling device to instruct participants to complete self-report questionnaires. By prompting an individual to give their own report in their own natural environment, researchers obtain the most representative data of a person’s momentary experiential states within the context and flow of their daily experiences and natural settings.

**Experience Sampling Program**

ESP is a widely used, open-source software program that allows the user to customize and program an ESM study onto a PDA. The researcher has the ability to set a period of time where the device will alert the user with a beep and prompt them to answer questions which can be customized by the researcher. The input data is stored in the device’s internal memory and can be transferred easily from the unit to a computer with statistical analysis software.

**Positive Affect/Negative Affect Survey**

The PANAS is a reliable and valid method of measuring a person’s PA and NA through self-reports. It is a twenty-item survey, with one half measuring PA levels and the other measuring NA levels.