Building a Web-based Environment to Support Sponsored Research and University-wide Collaborations

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She has been a part of Military REACH team since 2019 focusing on making user interaction easy and efficient to use and providing the best user-experience across all the devices.
Outline

• The purpose of Military REACH
• Military REACH Architecture
• Introduction to the Cascade CMS
• What We Do and How We Do It?
• Evaluation Methods
Presentation Video Link:

• YouTube Link of the presentation:

https://www.youtube.com/watch?v=k61__2DLU3c
Military REACH: Purpose

Across disciplines, it takes 17 years, on average, for professionals to have access to “current” research implications (Munro, 2016).
Military REACH: Purpose

- University-wide collaboration between
  - Auburn University Libraries
  - Department of Computer Science
  - Department of Human Development and Family Sciences

have supported the University’s research enterprise in a new way: by serving as a high-level Information Technology (IT) and data-management consultants to faculty researchers who are pursuing external funding.
Military REACH: Purpose

1. Provide timely, high-quality research reports at the request of DoD.
2. Re-engineer, grow, and promote an online library of current research and its implications related to the well-being of military families.
3. Design and market professional development opportunities, tools, and resources for youth development professionals.
Military REACH: Architecture

<table>
<thead>
<tr>
<th></th>
<th>Library Search</th>
<th>Featured Research</th>
<th>Newsletters</th>
<th>TRIP Reports</th>
<th>Resources</th>
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<tbody>
<tr>
<td>Web-based App</td>
<td>Focus Terms</td>
<td>Selected Items</td>
<td>Archived</td>
<td>Translate</td>
<td>Professional</td>
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<td>Current Month Items</td>
<td>Research into Practice</td>
<td>Development</td>
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<td>API Wrapper</td>
<td>Core API</td>
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<td>UUID PDF locator</td>
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<td>SOLR API</td>
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Military REACH: Architecture

1. Web-based app (Front-end layer):
   - Hypertext Markup Language (HTML)
   - Cascading Style Sheets (CSS)
   - JavaScript in Java Server Pages (JSP)
   - Cascade Content Management System (CMS)
2. Application Programming Interface (API) Wrapper (Back-end layer):
   - Java Servlets
   - Java Server Pages (JSP)
Military REACH: Architecture

3. DSpace:
   - A database to store Military REACH related research articles
   - Search, Manage and preserve digital content
   - Allows for a group based access to control the setting for level based permission to individual files
Introduction to the Cascade CMS

Cascade Content Management System (CMS) is used in the Web application to update and manage site content.

1. Content creation
2. Content storage
3. Workflow management
4. Publishing

Use of Cascade CMS on Military REACH

(www.militaryreach.org/)
What We Do and How We Do IT

Research Summaries  Research Reports

Translating Research Into Practice (TRIP) Reports
During this step, we...

- Identify current research on military families.
- Determine how the information provided can help our target audiences.
During this step, we evaluate the research based on three components:

1. **Credible** – Sound science
2. **Contributory** – Impact of the research
3. **Communicative** – Well-written
During this step, we translate research into useful, practical, and high-quality resources by:

- *summarizing* the key findings
- *synthesizing* the research into implications for military families, helping professionals, and those who work on behalf of military families.
During this step, we archive research and resources in the REACH online library.

• It is **publically accessible** and **free**.
• Users can find detailed information on each study, a link to the original source, and, when available, a TRIP report.
1. Physical fighting among male and female adolescents of military families: Results from a representative sample of high school students

   Authors: Reinhardt, Jason; Clements-Nolle, Kristen; Yang, Wei
   Year: 2019

   Article & Summary

   Detailed Record  View Research Summary  Link to Source

2. Exploring the association between changes in partner behaviors, perceived service member drinking, and relationship quality: Secondary analysis of a web-based intervention for military partners

   Authors: Trail, Thomas E.; Osilla, Karen Chan; Rodriguez, Lindsey M.; Pedersen, Eric R.; Gore, Kristie L.
   Year: 2019

   Article & Summary

   Detailed Record  View Research Summary  Link to Source

3. Intergenerational resilience in families affected by war, displacement, and migration: “It runs in the family”

   Authors: Denov, Myriam; Fennig, Maya; Rabiau, Marjorie Aude; Shevelli, Meaghan C.
   Year: 2019
During this stage, we ...

- Distribute research and resources to military families, helping professionals, and policy makers.
- Send reports directly to the DoD for distribution to those who can use the information to inform policy and practice.
- Disseminate the key findings through multiple social media platforms, linking viewers to resources and reports (e.g., TRIP reports).
Distribute

You can receive our monthly newsletters which provide comprehensive updates about our recent products and new research.

https://www.militaryreach.auburn.edu/#/reach_updates

Military REACH Monthly Newsletter

The monthly newsletter features the most recent products from the Military REACH team. These products include Research and TRIP reports and an editorial piece highlighting a new topic each month!

Research Reports are thorough reviews of existing research on a topic of relevance to military families. These reports identify trends, best practices, and implications for policy and practice.

Translating Research Into Practice (TRIP) Reports briefly summarize and evaluate recently published military family research and provide practical implications of that study for families, helping professionals, policy makers, and military leadership.
Research Reports

TRANSLATING RESEARCH INTO PRACTICE (TRIP) REPORT

THE ASSOCIATION OF PARENTERIFICATION INDICATORS WITH SUBSTANCE USE PATTERNS AMONG MILITARY-CONNECTED ADOLESCENTS


BRIEF SUMMARY
Instrumental parenteralization is the process of youths inheriting household responsibilities that are typically assigned to adults. According to structural family systems theory, healthy families have clear, appropriate boundaries between what is expected of children and adults, furthermore, families without these differentiations are likely to experience negative outcomes. However, it is possible that, parenteralization is not just a function of culture where it is expected. Participants were adolescents (N=1,441) who had a parent in the military and completed the 2013 California Healthy Kids Study. Analyses examined the patterns of parenteralization experienced by adolescents and if these patterns predicted substance use. Findings showed that military-connected adolescents who reported greater parenteralization (evidenced by more household responsibilities compared to their peers) appear to be at lower risk for regular substance use compared to those reporting lower parenteralization.

KEY FINDINGS
Three classes of parenteralization were identified:

- High Parenteralization:
  - 34% of participants.
  - The highest probability of reporting more responsibilities at home, more independence, and better problem solving skills than their peers.

- Moderate Parenteralization:
  - 30% of participants.
  - "Partly true" or "a little true" that this group had lower responsibilities at home, more independence, and better problem solving skills than their peers.

- Low Parenteralization:
  - 36% of participants.
  - The least likely to report more responsibilities at home, more independence, and better problem solving skills than their peers.

Three classes of substance use were identified:

- Abstainer
  - 14% of participants.
  - Reported no substance use.

- Polysubstance Experimenters
  - 14% of participants.
  - Reported some substance use in their lifetime.

- Frequent Polysubstance User
  - 72% of participants.
  - More likely to report regular use of substances other than marijuana.

- High parenteralization adolescents were more likely to report having experienced a parental deployment in the last 10 years (14%) compared to low parenteralization adolescents (13%). Additionally, high parenteralization adolescents were more likely to worry about a deployed family member (72%) compared to the low parenteralization group (55%).

- In comparison to the low parenteralization adolescents, high parenteralization adolescents were 62% less likely to be in the frequent polysubstance use group compared to the abstainer group.

IMPLICATIONS FOR FAMILIES
- Increasing adolescents' household responsibilities, perhaps especially during times of deployment, may reduce the risk of frequent substance use.
- Be aware that the vast majority of military-connected adolescents report little to no substance use. Seek appropriate support services if you have concerns about the substance use of your adolescent.

IMPLICATIONS FOR HELPING PROFESSIONALS
- Highlight the potential positive outcomes of parenteralization during deployment for military-connected adolescents, such as improved problem solving skills, increased independence, and more independence.
- Recognize how parenteralization (although often labeled as unhealthy) may be adaptive for adolescents in military settings, and appropriately adapt services provided.

IMPLICATIONS FOR POLICY MAKERS AND MILITARY LEADERSHIP
- Help families understand what is nutritious in terms of parenteralization and substance use through educational materials. Provide information for appropriate support services when instrumental parenteralization and substance use may reach levels that are unhealthy.
Evaluation Methods

- Google Analytics
  - Does not include personal identifiable information
  - Tracking code collects data such as length of the session, average time on each page, location, etc.
# Google Analytics Data

<table>
<thead>
<tr>
<th>Acquisition</th>
<th>Users</th>
<th>New Users</th>
<th>Sessions</th>
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<tr>
<td><strong>Change</strong></td>
<td>175.93%</td>
<td>182.00%</td>
<td>169.62%</td>
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<td><strong>Total Jul 15, 2019 - Nov 2, 2019</strong></td>
<td>1,134</td>
<td>1,078</td>
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<td><strong>United States</strong></td>
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<tr>
<td>Nov 2, 2019 - Jun 11, 2020</td>
<td>2,804 (89.58%)</td>
<td>2,717 (89.38%)</td>
<td>5,193 (93.32%)</td>
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<td>Jul 15, 2019 - Nov 2, 2019</td>
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<td>995 (92.30%)</td>
<td>1,969 (95.40%)</td>
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<td><strong>% Change</strong></td>
<td>167.05%</td>
<td>173.07%</td>
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<td><strong>Canada</strong></td>
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<td>Nov 2, 2019 - Jun 11, 2020</td>
<td>88 (2.81%)</td>
<td>87 (2.86%)</td>
<td>106 (1.90%)</td>
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<td>3 (0.28%)</td>
<td>8 (0.39%)</td>
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<td><strong>% Change</strong></td>
<td>2100.00%</td>
<td>2600.00%</td>
<td>1225.00%</td>
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<tr>
<td><strong>(not set)</strong></td>
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<tr>
<td>Nov 2, 2019 - Jun 11, 2020</td>
<td>29 (0.93%)</td>
<td>29 (0.95%)</td>
<td>29 (0.52%)</td>
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<tr>
<td>Jul 15, 2019 - Nov 2, 2019</td>
<td>48 (4.23%)</td>
<td>48 (4.45%)</td>
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<td><strong>% Change</strong></td>
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<td>-39.58%</td>
<td>-39.58%</td>
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<td><strong>India</strong></td>
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<td>Nov 2, 2019 - Jun 11, 2020</td>
<td>27 (0.86%)</td>
<td>26 (0.86%)</td>
<td>33 (0.56%)</td>
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<td>Jul 15, 2019 - Nov 2, 2019</td>
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<td>5 (0.48%)</td>
<td>9 (0.44%)</td>
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<td><strong>% Change</strong></td>
<td>440.00%</td>
<td>420.00%</td>
<td>256.67%</td>
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<td>Nov 2, 2019 - Jun 11, 2020</td>
<td>20 (0.64%)</td>
<td>20 (0.66%)</td>
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Google Analytics results helped the Military REACH team analyze the website’s usage to serve military families better. Compared to the first two years, website usage almost tripled last year.

According to the Google Analytics results, 31% of users have access to the website through their phone.

In the future, Military REACH plans to conduct a pilot testing of a newly developed mobile app that will be used for the dissemination of REACH reports, mainly Translating Research Into Practice (TRIP) reports.