A Report of the
Department of Social Services
Commonwealth of Virginia

ANNUAL REPORT ON HUMAN RESEARCH
State Fiscal Year 2015

to the Governor and the
General Assembly of Virginia

October 2015

Preface

Section 63.2-218 of the Code of Virginia (Code) requires the State Board of Social Services to adopt regulations regarding human research. The statute further requires the human research committee, referred to as the Institutional Review Board (IRB), to provide an annual report to the Governor and General Assembly on the human research projects reviewed and approved during the operating year:

> *The Board shall adopt regulations to effectuate the provisions of Chapter 5.1 (§ 32.1-162.16 et seq.) of Title 32.1 for human research, as defined in § 32.1-162.16, to be conducted or authorized by the Department, any agency or facility licensed by the Department, or any local department. The regulations shall require the human research committee to submit to the Governor, the General Assembly, and the Commissioner at least annually a report on the human research projects reviewed and approved by the committee and shall require the committee to report any significant deviations from the proposals as approved.*

This report on human research projects reviewed and approved by the IRB during State Fiscal Year (SFY) 2015 is in response to the mandate in § 63.2-218.

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Executive Summary

In SFY 2015, the Department of Social Services' (DSS) human research committee, referred to as the Institutional Review Board (IRB), considered four proposed research projects. Three projects qualified as exempt from IRB review. Based on guidance from the Office of the Attorney General regarding release of confidential client records, the fourth project was not approved by the agency and no further action was taken by the IRB. In addition, one ongoing project was approved for a one-year continuation into SFY 2016. There were no major modifications reported for ongoing studies.

Research involving DSS clients generally involves no risk of physical harm because it is not clinical research but observational studies of human behavior. The potential risk for DSS studies most often involves issues of client privacy and, to a lesser extent, psychological harm (for example, from surveys that include sensitive questions). The IRB has a responsibility to protect client privacy and, more generally, to minimize the risks of research activities to DSS clients.

Department of Social Services Annual Report on Human Research, SFY 2015

Report Mandate

The purpose of this report is to provide the Governor and the General Assembly with a summary of the activities of the DSS IRB for SFY 2015 (July 1, 2014 through June 30, 2015). The IRB is charged with reviewing, approving, and monitoring research conducted or authorized by DSS, local departments of social services, DSS contractors, and DSS-licensed facilities.

Section 63.2-218 of the code of Virginia requires the IRB to "submit to the Governor, the General Assembly, and the Commissioner at least annually a report on the human research projects reviewed and approved by the committee and shall require the committee to report any significant deviations from the proposals as approved." Appendix A provides the full text of Section 63.2-218.

Introduction

Research involving DSS clients is not biomedical in nature. Typically, DSS clients participate in social or behavioral studies and in program evaluations. Unlike medical studies, physical risk from this type of research is rare. Most often, the potential risk in DSS-related studies involves privacy issues. DSS-related research projects may also include survey questions concerning issues that are psychologically or sociologically sensitive.

The IRB reviews such research in advance to ensure, first, that the rights of clients are protected and, second, that the proposed research maintains the privacy and welfare of the participants. Using established criteria for IRB approval of research, the IRB may determine that a study is exempt from review, appropriate for expedited review, or requires full board review. If a study is not exempt, it may be appropriate for an expedited review, depending on the type of human subjects being studied and the nature of those activities. An expedited review is conducted by the IRB Chair and one other board member. In a full review, all IRB members must review and approve the study.

Human Research Activities for SFY 2015

The DSS Division of Research and Planning is responsible for administering the IRB and ensuring compliance with federal and state regulations regarding human subject research. Gail Jennings, Ph.D., a research associate senior in Research and Planning, served as the Coordinator and Chairperson for the DSS IRB during SFY 2015.[1]

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1 Dr. Jennings has served as the IRB Coordinator since January 2012. She also assumed the role of Chairperson in July 2012, upon appointment by the DSS Commissioner.

Major activities in support of the IRB for SFY 2015 included:

- Providing input and feedback for proposed research and evaluation studies and informing involved Principal Investigators (PIs) and DSS division directors and program managers about relevant IRB regulations and requirements;
- Reviewing the protocols of research studies submitted for IRB review and determining whether they met the criteria for IRB approval;
- Reviewing requests from PIs to extend approval for studies planned for continuation beyond their initial one-year approval;
- Informing DSS IRB members about procedural changes via conference calls and e-mail correspondence;
- Maintaining an Access database for tracking the status of IRB reviews, study modifications, and continuations; and
- Maintaining the IRB web page on the VDSS public web site (http://www.dss.virginia.gov/about/irb.cgi). The web page is where IRB forms and guidance documents (e.g., Guidelines and Procedures manual) reside. The most recent revision to the IRB Guidelines and Procedures Manual was released in May 2015. A section addressing adverse events was added to the Manual.

The State Board of Social Services human research regulation requires that IRB members "ensure the competent, complete, and professional review of human research." State regulations require that the Board have a minimum of seven primary members, including two members who represent non-scientific disciplines.

In June 2012, the DSS Commissioner appointed a new board consisting of eight primary members plus the IRB Chairperson/Coordinator to serve a three-year term, which expires June 30, 2015. Since 2012, changes in the board membership have occurred: three members resigned due to job changes, one member deceased during his term, and three new members were acquired.

During SFY 2015, the DSS IRB had eight active primary members. Six IRB members represented the social services system: five came from the state office and one from a local department of social services. Two members were affiliated with external partner organizations that serve the community. Several members had research experience and/or had previously served on other institutional review boards. The IRB membership fully complies with state and federal human research regulations. A roster of current DSS IRB members (as of June 2014) is located in Appendix B.

Several changes to the IRB's membership will be made going forward into the next state fiscal year:

- With the three-year term nearing its expiration date, current members were asked if they were interested in continuing their participation on the IRB. Seven of eight members agreed to continue their service on the board for a new three-year term, effective July 1, 2015 and ending June 30, 2018. The appointments of two new members, both external to DSS, were proposed. The DSS Commissioner approved the re-appointments of the seven existing

members and the two new appointments, resulting in a total of nine members, including the Chairperson.

- Effective July 1, 2015, Dr. Myra Owens will assume the roles of IRB Coordinator and Chairperson. Dr. Owens, who is a senior research associate in the DSS Office of Research and Planning and current IRB member, had previously served as IRB Chair and Coordinator at another institution. Dr. Jennings will continue to serve on the IRB as a primary member and assist Dr. Owens through this transition.

The agency IRB renewed its registration with the U.S. Department of Health and Human Services' Office for Human Research Protection (OHRP). The registration is effective through May 2018. Furthermore, the agency maintains its status as an organization conducting human research (Federal-Wide Assurance) with the OHRP. The agency's FWA registration expires in June 2017.

Projects Reviewed

Four studies were submitted to the DSS IRB for consideration during SFY 2015. Three were initially reviewed by the Chairperson and one other board member and deemed *exempt* from IRB review. Based on guidance from the Office of the Attorney General regarding release of confidential client records, one study was not approved by the agency and no further action was taken by the IRB.

Study # **2015-03**
Principal Investigator: Reagan Eschleman (coordinator)
Affiliation: Sentara RMH Medical Center (dba Rockingham Memorial Hospital)
Title of Study: "Central Shenandoah Valley Partnership Regional Partnership Grant"
Decision & Date: Not Approved – 5/14/2015
Review Type: Expedited
Description of Study: This federally-funded project proposed to evaluate family outcomes for adults receiving substance abuse recovery services from Rockingham Memorial Hospital through the Regional Partnership Grant. Participants' study data would be linked to DSS client records to determine if related children eventually become involved in the child welfare system (e.g., focus of child protective services' investigation, removal from home/ placement in foster care). The purpose is to determine if RPG services result in an increase in children's well-being, family stability, permanency, and safety. Because RMH submitted a request for client records (with personal identifiers) from the state's administrative child welfare information system, DSS sought advice from the Office of the Attorney General regarding regulations on release of confidential client records. The OAG confirmed that federal law prohibits the release of foster care records, even with informed consent. Furthermore, state code states that child welfare records may only be released to a person with "legitimate interest." DSS finds that the PI does not qualify as an entity with legitimate interest and that the study findings will have no direct benefit on the state's child welfare system. Therefore, the PI's request for child welfare client data was denied, and no further action or review was taken by the IRB.

The following studies were deemed **exempt** from review:

- "Mind the Gap: An Assessment of Needs in the Hampton Roads Bhutanese Refugee Community" (PI: Rana Gautam, Christopher Newport University). This study, submitted to the DSS IRB on 7/18/2014, was exempt from review because the activities involved analyzing existing client data on refugees enrolled in DSS's newcomer service program. The purpose of the study is to describe the population of resettled refugees from Bhutan (primarily of Nepalese origin) living in the Hampton Roads area and to make comparisons to other refugee populations living in the state. Demographic information and information on access to services were requested. No personally identifying information was released to the researchers.

- "Virginia Kindergarten Readiness Project" (PI: Amanda Williford, University of Virginia). This study, submitted to the DSS IRB on 7/28/2014, was exempt from review because its activities involved the evaluation of the administration of a new kindergarten readiness assessment tool to children enrolled in public schools. To supplement the reading readiness tool (PALS) currently used by public school systems, the new tools are designed to assess for math and social-emotional skills and readiness. These will complement tools (Phonological Awareness Literacy Screening, or PALS) currently used by many school systems to assess reading readiness.

- "National Youth in Transition Database Services and Outcome Survey" (PI: Letha Moore-Jones, VDSS Division of Family Services). The objective of this study, which was submitted to the IRB on 1/23/2015, is to assess outcomes for youth transitioning out of foster care. The study follows cohorts of youth longitudinally from ages 17 to 21 years and assesses outcomes related to educational attainment, employment, use of public assistance, participation in risk behaviors (e.g., substance use, non-marital birth) and involved adults to determine where pre- and post-exit services would be most effective. The study is exempt from review because its activities involve evaluation of program effectiveness and are not research-related.

Continuation Reviews and Modifications

One ongoing study was approved for continuation into SFY 2016:

- "Wendy's Wonderful Kids Post-Adoption Study: How are adopted foster youth faring as young adults?" (PI: Karen Malm, Child Trends). The study was initially approved in March 2014 and approved for continuation through 3/24/2016. No modifications to the study were noted. The DSS IRB was notified about a lapse in study protocol: DSS Family Services staff contacted local departments of social services about missing contact information for youth in the study sample. One local agency sent notification letters to eight youth and their families informing them that their contact information was shared with DSS. No families contacted either DSS or the PI about the notification letters. No risk was posed to participants as a result of the action taken. The PI reviewed the study protocol with state staff, and instructed the local agency to desist sending notification letters to families

There were no ongoing studies that submitted a modification review.

Significant Changes to Approved Projects

There were none to report.

IRB Meetings

The IRB Chair/Coordinator did not convene an in-person meeting with the IRB during SFY 2015. However, the IRB Chair/Coordinator communicated with members via email and conference call about IRB matters, including discussion of specific studies under review and new and updated IRB policies. Once the new Board is appointed, members will be convened at the earliest convenience.

Results of Completed Research

Chapter 413 of the 2007 Acts of Assembly amended and reenacted § 32.1-162.19, relating to human research review committees, by adding a new sub-section E that states:

> *Each human research review committee of a state institution or agency shall ensure that an overview of approved human research projects and the results of such projects are made public on the institution's or agency's website unless otherwise exempt from disclosure under the Virginia Freedom of Information Act (i.e., § 2.2-3700 et seq.).*

In compliance with this legislative mandate, the results of all completed IRB-approved research studies are listed on the IRB Internet web site by year of approval, under the heading "Results of Approved Projects." The address of the IRB Internet web site is: http://www.dss.virginia.gov/about/irb.cgi. Results from studies initiated in SFY 2005 through SFY 2014 are available.

The following studies were completed and/or the case file was closed in SFY 2015:

- "Understanding the Rates, Causes, and Costs of Churning in the Supplemental Nutrition Assistance Program" (PI: Gregory Mills, Urban Institute). The study was initially approved in January 2013, approved for continuation in May 2014, and closed with findings on 12/18/2014. The full published report is on the U.S.D.A Food and Nutrition Service web page: http://www.fns.usda.gov/sites/default/files/ops/SNAPChurning.pdf.

- "An Examination of Activities to Improve Employee Well-Being" (PI: Seth Kaplan, George Mason University). The study was approved in July 2013 and closed with findings on 7/30/2014. No modifications to the study were noted.

- "Albemarle County Department of Social Services' Adult Protective Services Assessment of Risk Tool (APSART) Validity Study" (PI: Sarah Fisher, Albemarle County Department of Social Services). The study was approved in April 2013 and closed with findings by August 2014. A modification to the study was made in June 2013.

- "Building an Integrated Child and Family Policy Research Data Capacity for the Commonwealth of Virginia" (PI: Isabel Bradburn, Virginia Tech Child Development

Center). The study was approved in May 2009, received multiple continuations through 2014, and closed on 7/25/2014 with no findings. Funding ended before the analysis phase of the project could be completed. Therefore, no data report is forthcoming. The PI is seeking other funding to continue the project.

- "EITC Outreach to Reduce Filing Burden" (PI: Dayanand Manoli, U.S. Department of Treasury and University of Texas-Austin). The study was approved in January 2013, and anticipated to take two years to complete (through January 2015). The PI informed the IRB that the study never started after the agency's collaborator left for another job in March 2013. The study is closed with no findings.

Findings from the first three studies are in Appendix C.

Appendix A: Code of Virginia Mandate

§ 63.2-218. Board to adopt regulations regarding human research.

The Board shall adopt regulations to effectuate the provisions of Chapter 5.1 (§ 32.1-162.16 et seq.) of Title 32.1 for human research, as defined in § 32.1-162.16, to be conducted or authorized by the Department, any agency or facility licensed by the Department, or any local department. The regulations shall require the human research committee to submit to the Governor, the General Assembly, and the Commissioner at least annually a report on the human research projects reviewed and approved by the committee and shall require the committee to report any significant deviations from the proposals as approved.

(1992, c. 603, § 63.1-25.01; 2002, c. 747.)

Appendix B: DSS IRB Membership

DSS Institutional Review Board, 2013-2015 (as of June 30, 2014)		
Name	**Educational Degree**	**Institutional Affiliation (Position Title)**
Gail Jennings (Chair & Coordinator)	Ph.D., Psychology	Virginia Department of Social Services, Office of Research and Planning (Statistical Analyst Senior)
Mary Disse**	B.A., Psychology Post-Baccalaureate Certificate in Information Systems	Virginia Department of Social Services, Division of Information Systems (Business Analyst)
Erika Jones-Haskins*	Master of Social Work	Virginia Housing and Development Authority (Community Housing Officer for Homelessness and Non-Profits; formerly with Homeward)
Myra Owens	Ph.D., Health-Related Sciences	Virginia Department of Social Services, Office of Research and Planning (Statistical Analyst Senior)
Em Parente	Ph.D., Social Work	Virginia Department of Social Services, Division of Family Services (Program Manager)
Jeff Price	Ph.D., Agricultural and Applied Economics M.A., Anthropology	Virginia Department of Social Services, Office of Research and Planning (Office Director)
Susan K. Spain*	M.S., Sociology	None (formerly with Virginia Commonwealth University)
Tamara Temoney	Ph.D., Public Policy and Administration	Hanover County Department of Social Services (Assistant Agency Director)

* Community member or represents agency serving community members. ** Non-research

Appendix C: Summary of Study Findings

Principal Investigator: Gregory Mills, Ph.D.

Institutional Affiliation: Urban Institute

Study Title: Understanding the Rates, Causes, and Costs of Churning in the Supplemental Nutrition Assistance Program

Term of IRB Approval: January 31, 2013 – January 30, 2014 (with continuation into 2015)

Study Completed: November 2014

Executive Summary/Abstract:

This multi-state study examines the rates, causes, and costs of participant churn in the Supplemental Nutrition Assistance Program (SNAP). Churn is defined as "when a SNAP case exits the program and then reenters within four months or less," as currently defined by the Food and Nutrition Service (FNS). Churn is a policy concern for several reasons: the forgone benefits among households who were eligible while off the program, the client time and expense involved in reentering the program, and the added federal and State administrative costs associated with case closings and re-openings. This study seeks to: 1) determine rates and patterns of churning among SNAP clients, 2) examine causes of churning, 3) determine the process of churner re-entry, and 4) calculate the cost of churning in each of six states (including Virginia).

Through a combination of quantitative analysis of state administrative case and client detailed data (over the period of December 2009 through December 2012) and quarterly unemployment insurance wage records as well as qualitative analysis of interview and focus group responses from local agency staff, community-based organizations, and SNAP clients, here are the major findings from this research:

Rates and patterns of churn
- Across the six study states, the estimated rate of churn for fiscal year (FY) 2011 ranged from 17 to 28 percent (21% for Virginia), based on analysis of state case-level SNAP participation data. The annual rate of churn is the number of households experiencing a churn spell that occurred wholly or partly within the year as a percentage of all households receiving benefits at any time during the year.
- For a very high proportion of churning cases (ranging by state from 66 to 90 percent), the precipitating exit occurs at the time of a scheduled recertification or a required interim report.
- More than 60 percent of churners (range: 62%-79%; 77% for Virginia) are off the program for one month or less.

Agency, client, and community perspectives on SNAP churn

- SNAP clients who have recently churned indicated in focus groups that they experienced a great deal of anxiety when they lost their SNAP benefits, even if for a short period, as the benefit loss was unexpected. Some clients first became aware of loss of benefits when they were attempting to purchase groceries.
- In addition to experiencing food insecurity, the loss of benefits led to broader financial insecurity for SNAP churners. In having to commit more of their scarce income for food, churners were less able to pay important bills such as their utilities or rent.
- Churn sometimes occurred when SNAP clients got a new job that was lost quickly due to illness or lack of child care. In related instances, churn occurred when the household's income went up for a short period because of seasonal employment or overtime pay.
- Procedural issues often led to churn. The most frequently cited reason was non-response to a recertification notice due to: notices going to the wrong home address, clients experiencing personal difficulties, inability to use online resources for re-applying, or having no transportation to go to the local agency office to apply in-person.
- SNAP workers and CBO representatives described policy or procedural changes that they believed could reduce churn, such as reducing the client burden at recertification, providing a 30-day grace period for recertification, and providing more responsive customer service.

Household and locational factors associated with churning

- Compared to non-churning cases, churning cases tend to have case heads of households who are younger (< 45 years old), nonelderly and nondisabled living with children, employed (or unemployed with no other unearned income), and black non-Hispanic.
- Regarding income, the cases at greatest risk of churn are those with gross income above 100 percent of the poverty level and those with no earned or unearned income at all. These two distinct high-risk groups suggest very different storylines for churners: one that involves gaining more income and leaving SNAP because of actual or perceived benefit ineligibility and one that involves leaving SNAP given challenging household circumstances and difficulty with the recertification process.
- Overall, pre- and post-churn earnings patterns provide little indication that additional earnings (e.g., unemployment insurance wage data, other wages) is a significant cause of churn, particularly among those who churn for one month or less.
- Although local characteristics appear to have small effects on churn, households are more likely to churn if their area has more per-capita community food providers (e.g., food pantries). These may be high-poverty areas where both clients and agencies are challenged to keep pace with required reporting, notices, and casework.
- Other factors that contribute to high churn rates: changes in address (due to moves within the state); changes in household size or composition (number of adults or children); changes in gross earnings or employment status; changes in other program benefits, other unearned income or assets; issues of language, literacy, age and disability. Some of these may be associated with household instability rather than household ineligibility.
- The contributing factors for which both the quantitative and qualitative research provided supporting evidence are as follows: changes in address; changes in earnings or employment status; changes in other program benefits, other unearned income, or assets; changes in household size or composition; and issues of language, literacy, age, and disability.

- Households with elderly or disabled members are less likely than others to churn within the ensuing year, as their longer certification periods make them less likely than others to face a recertification or required interim report in the upcoming 12 months. However, the longer certification periods typically assigned to the elderly and disabled may simply forestall the problem, extending the period on SNAP before churn occurs. If so, improvements to the recertification process (rather than longer certification periods) may be the more critical factor in reducing churn.

Costs associated with churn

- Churn imposes costs both to program clients and to agencies administering the program. For agencies, churn increases costs by requiring agencies to process additional applications from households reentering the program (reapplications for households returning to the program takes more staff time than re-certifications). For clients, costs include the loss of benefits that they otherwise would have received, the administrative burdens involved in the steps taken to reenter the program, and other burdens related to coping during the period without benefits.
- On average among the six States, the certification costs associated with churn are approximately $80 (range: $30 to $130) for each instance of churn that requires a full reapplication.
- Churn also leads to a partial cost offset through a reduction in case maintenance costs. When combined with the added certification costs, the estimated net administrative costs of churn for States range annually from $0.1 million in Idaho to $3.9 million in Illinois.
- The annual amount of SNAP benefits forgone by cases that churn ranges from $2.2 million in Idaho to $108.2 million in Florida.
- Other notable costs to churning households are not included in the above estimate of forgone benefits. Households who churn must devote time and effort to reapply for SNAP benefits or otherwise rectify the situation that led to their case closure. They also face material hardship when they do not receive SNAP benefits, relating not only to shortages of food but also to housing insecurity, an inability to meet other basic expenses, and a general increase in anxiety and stress. In addition, some of the steps that they take to cope with the loss of benefits involve out-of-pocket costs, such as the travel cost to food pantries.

Conclusions

- *Implications for program policy and administrative procedure:* The quantitative and qualitative evidence presented in this report suggests that SNAP churn has adverse consequences to agencies and clients that are sufficient to warrant consideration of actions to reduce churn. One should recognize that some amount of churn is unavoidable in light of fluctuating circumstances among low-income households. Decisions on whether to adopt changes in policy or procedure will involve trade-offs among multiple objectives. A lower rate of churn is clearly a desirable goal; it represents an improvement in benefit access and service quality for program clients. A lower churn rate may be very difficult to achieve, however, without some risk of compromising other objectives, such as maintaining low error rates and keeping total program costs within budget constraints. The information in this study is a first step in providing the systematic evidence needed to inform such choices.

The full published report is on the U.S.D.A Food and Nutrition Service web page:
http://www.fns.usda.gov/sites/default/files/ops/SNAPChurning.pdf

Principal Investigator: Seth Kaplan, Ph.D.; Carolyn Winslow

Institutional Affiliation: George Mason University, Department of Psychology

Study Title: An Examination of Activities to Improve Employee Well-being

Term of IRB Approval: July 31, 2013 – July 30, 2014

Study Completed: July 30, 2014

Summary or Abstract:

This study examines whether completing self-guided activities improves employee well-being and job satisfaction, and if these effects endure over time. With the cooperation of the Virginia League of Social Services Executives (VLSSE) and various LDSS directors, employees of 24 local departments of social services were invited to participate in the study.

After the sample was finalized, we randomly assigned participants to one of three different conditions: a gratitude intervention, a combination of gratitude and increasing social ties (a "mixed" condition) interventions, or a wait-list control condition. Those assigned to the gratitude group were asked to reflect on that for which they were grateful at work. Participants assigned to the mixed group were asked to alternate between practicing gratitude and increasing social ties (seeking out new or improving existing social interactions with coworkers and/or clients) throughout the study. Both the gratitude and mixed groups engaged in brief (5-minute) self-directed activities. Finally, the wait-list control group participated in one of the two other conditions, but only after one month had elapsed. Participants were asked to complete their assigned activities at least twice a week over the course of a 4 week period. Reminder emails were sent to participants to complete assigned activities. Participants were then asked to complete a survey after the intervention (at Week 4), and again at four and eight weeks after the intervention period was completed (Weeks 8 and 12, respectively).

 A total of 104 employees participated. Each employee was randomly assigned to one of three groups mentioned above: a gratitude intervention group (32 participants), a mixed intervention group (30 participants), and a wait-list control group (42 participants).

Analyses suggested that, compared to individuals in the control condition, certain individuals in the gratitude group experienced numerous benefits. Specifically, individuals who are relatively higher on the personality trait agreeableness (propensity to trust and cooperate) experienced increases in gratitude and positive job-related emotions. Second, individuals who had been in their position at Virginia Social Services for a relatively shorter amount of time showed an increase in gratitude and a decrease in job stress. Finally, the more the participants completed the gratitude activity during the intervention period, the greater experienced decreases in negative job-related emotions, job stress, and increases in job satisfaction. In addition, the more socially-oriented the gratitude participants' electronic journal entries, the more social connectedness, happiness, and positive job-related emotions they experienced post-intervention.

The results of the study suggest that, at least for some employees, keeping a bi-weekly work-related gratitude journal can help to increase several aspects/indicators of work-related well-being. In particular, the findings imply that employees who are more trusting and agreeable and those who are new to their positions are likely to enjoy the greatest well-being gains from documenting work-related gratitude reflections. In contrast, trying to "force" workplace social interactions may not be beneficial and may even "backfire." Although the sample was small and not representative of all social services employees, these results are suggestive and require more exploration with a larger sample.

Although not examined in our study, other research on well-being consistently suggests that the following additional strategies may help to boost employee well-being:
- Identifying and using one's strengths at work (e.g., organization skills, assertiveness) – instead of focusing on overcoming one's "weaknesses";
- Setting SMART (Specific, Measurable, Attainable, Realistic, and Time-related) goals
- Engaging in job crafting (see http://positiveorgs.bus.umich.edu/cpo-tools/job-crafting-exercise/);
- Practicing mindfulness: ''purposeful attention and awareness of the present moment, approached with an attitude of openness, acceptance and non-judgment," and
- Maintaining a regular exercise routine.

Principal Investigator: Sarah Fisher

Institutional Affiliation: Albemarle County Department of Social Services

Study Title: Albemarle County Department of Social Services' Adult Protective Services Assessment of Risk Tool (APSART) Validity Study

Term of IRB Approval: April 16, 2013 – April 15, 2014

Study Completed: May 5, 2014 (submitted to the IRB in November 2014)

Summary or Abstract:

The purpose of this study was to validate the Adult Protective Services Assessment of Risk Tool (APSART), developed by Albemarle County Department of Social Services (ACDSS). The APSART was designed to provide a quantitative risk score, which translates to a risk level (defined as None, Low, Moderate, High), for adults about whom ACDSS has received a report of alleged maltreatment. The overall risk score is the combined value of eight sub-category scores: physical health, mental health, cognitive functioning, environmental risks, support system, abuse/neglect/exploitation factors, economic resources, and alleged perpetrator. Adult Protective Services (APS) Case Workers use the APSART score to assist with decision-making about how to respond to a given report, as well as to monitor improvement in client welfare.

Objectives

We decided to test the APSART's validity based on its ability to predict a repeat APS report following a previous APS report. We analyzed repeat reports within 3, 6, and 12 months of the original report. We set out to answer the following research questions:

1. Does the proportion of clients with repeat APS reports within each APSART risk category increase as the risk level increases? Does this vary by type of allegation?

2. Is the APSART score associated with the likelihood of a repeat APS report?

3. Does the APSART's association with repeat reports vary by ACDSS caseworker?

Methods

Study Population

ACDSS began administering APSART to clients for whom an APS report had been filed in 2010. We started with data on all clients for whom an APS report was filed during December 1, 2010-May 31, 2013 (N=811 individuals). Some clients had as many as ten APS reports during that time period. For our analysis, we restricted this dataset to only those clients with a report that occurred during the period of December 1, 2010-February 28, 2013, to ensure that all clients being included had at least 3 months of follow-up time. To assess repeat reports within 6 and 12 month time windows, we restricted our dataset to only those reports made during the periods of December 1, 2010-November 30, 2012 and December 1, 2010-May 31, 2012, respectively.

ACDSS's protocol is to complete the APSART for all clients for whom an APS report has been filed, although we have not always been consistent in this practice. Thus, we also excluded any clients with a report during that time period who had a missing or "deceased" APSART disposition score. This left us with a total study population of 387 APS clients for the 3-month follow-up period, 375 for the 6-month follow-up period, and 289 for the 12-month follow-up period. For the sake of space, we will primarily report the results of the 6-month follow-up period analyses.

Analysis
APSART data (worker name, score, risk category, disposition) are stored on an Excel spreadsheet. We obtained demographic data (client age, race-ethnicity, sex, education level), data on prior ACDSS services (a single dichotomous variable indicating whether the client had any prior referrals), and alleged and substantiated abuse types from the ASAPS database. These two datasets were linked based on the individual case number to create one analysis dataset.

We analyzed the data using SPSS 17.0 and considered p-values less than 0.05 to be statistically significant. We conducted a chi-square test for trend to determine whether the proportion of clients with a repeat report was statistically different among APSART risk categories. A score of ≥80 is categorized as "high", 30-70 is categorized as "moderate," 10-20 is categorized as "low," and 0 is categorized as "none."

We also used logistic regression to analyze the association between APSART score and at least one repeat report within a given time window (3, 6, or 12 months). We assessed the tool's predictive power by calculating the area under the receiver operator characteristic (ROC) curve for each regression model. By definition, an AUROC=0.5 indicates predictive power that is equal to chance; higher values indicate higher predictive power.

Finally, we examined the APSART's reliability among different workers by creating a series of fictional reports for which workers completed the APSART. Seven APS workers independently completed the APSART for the same five case scenarios. We calculated the intra-class correlation coefficient (ICC) for the workers' overall risk scores, as well as the sub-category scores.[2] We considered an excellent ICC to be 0.75-1.00, good ICC to be 0.60-0.74, fair ICC to be 0.40-0.59, and a poor ICC to be less than 0.40 (Cicchetti, 1994).

Results
APSART Validity Testing
Our study population was primarily non-Hispanic white (80.3%) and female (67.0%), with a mean age of 71 years (Table 1). The mean initial APSART disposition score was 75, which falls between the "moderate" and "high" risk levels. Only 11.7% of our study population had an initial APSART risk level in the "none" or "low" risk levels; 46.3% of subjects were categorized as moderate risk and 42.1% were categorized as high risk. This skewed distribution is somewhat expected because an APS report is only filed after all the invalid referrals have been filtered out.

More than one-third of clients with a report during the study period had a history of at least one prior APS report (35.4%). The proportion of clients with a previous APS report increases as the

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2 For all ICC analyses, we calculated a two-way mixed, absolute, average-measures ICC (Hallgren, 2012).
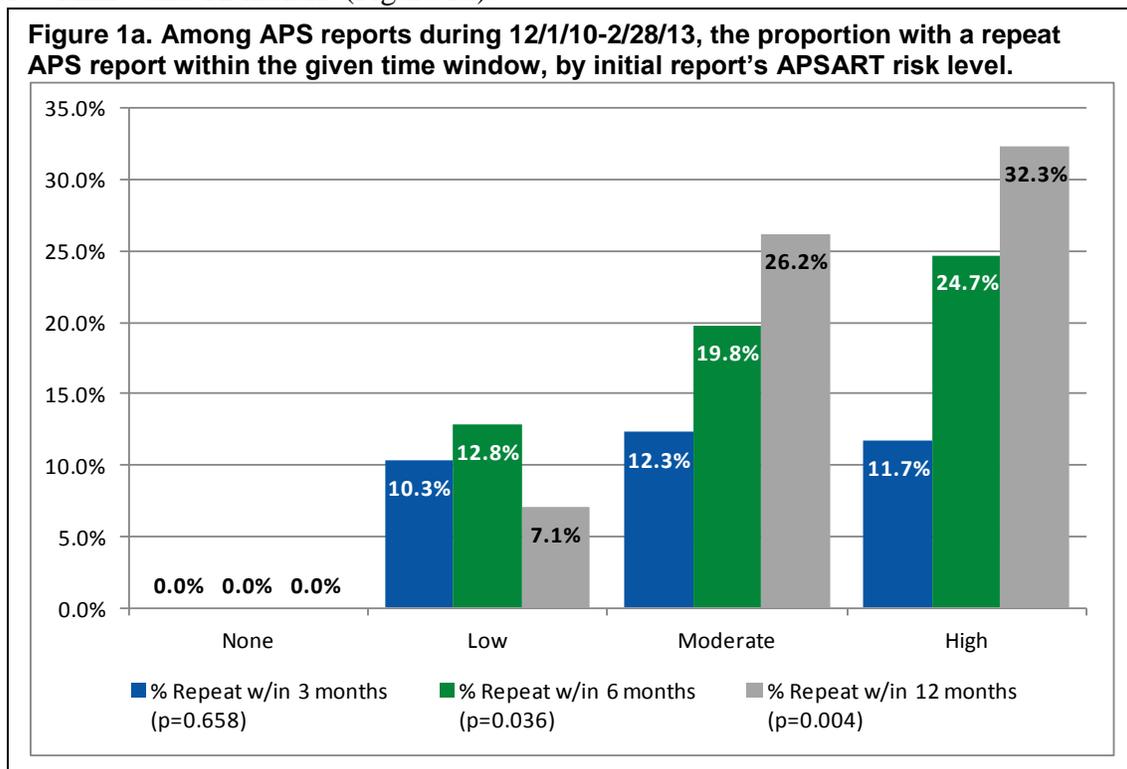
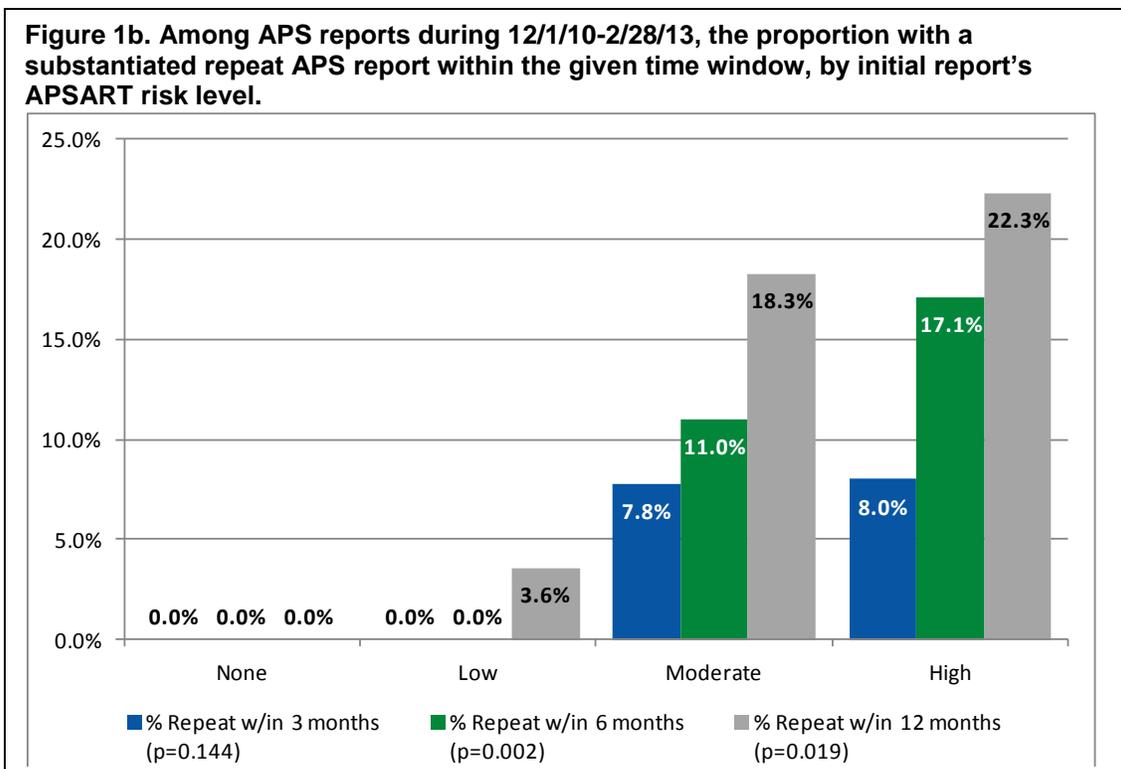APSART risk level increases, from 0.0% among low-risk reports to 46.6% among high risk reports.

Table 1. Sample characteristics, overall and by initial APSART risk level. Unless otherwise noted, values are n(%).

Characteristic	Overall	APSART Risk Level			
		None	Low	Moderate	High
Total*	387 (100)	6 (1.6)	39 (10.1)	179 (46.3)	163 (42.1)
APSART Disposition Score - mean (SD)	74.7 (46.5)	0.0 (0.0)	16.4 (4.9)	50.6 (13.9)	117.9 (37.2)
Age - mean (SD)	70.9 (18.2)	76.8 (10.1)	74.8 (16.4)	71.5 (17.4)	69.2 (19.4)
Sex - Female	258 (67.0)	5 (83.3)	26 (68.4)	120 (67.41)	107 (65.6)
Race/Ethnicity - Non-Hispanic White	286 (80.3)	5 (100.0)	25 (71.4)	132 (81.0)	124 (81.0)
Previous APS Report - Yes	137 (35.4)	0 (0.0)	6 (15.4)	55 (30.7)	76 (46.6)

Excludes all entries with a missing or "deceased" disposition score, or report date not during 12/1/2010-2/28/2013.

We found a statistically significant dose-response relationship between the initial APSART risk level and the proportion of clients with a repeat report within 6 and 12 months (Figure 1a). Among initial reports with a low risk score, 12.8% had a repeat APS report within 6 months, compared to 19.8% of reports with a moderate risk score and 24.7% of reports with a high risk score. There was a similar trend for repeat reports within 12 months: 7.1% of low risk reports had a repeat APS report within 12 months, compared to 26.2% among moderate risk reports and 32.3% among high risk reports. Although the proportions changed, the trends remained similar and significant when we analyzed the proportion of initial reports with a *substantiated* repeat report within 6 and 12 months (Figure 1b).

Figure 1a. Among APS reports during 12/1/10-2/28/13, the proportion with a repeat APS report within the given time window, by initial report's APSART risk level.

Figure 1b. Among APS reports during 12/1/10-2/28/13, the proportion with a substantiated repeat APS report within the given time window, by initial report's APSART risk level.

We did not find many statistically significant trends when we assessed the proportion of repeat reports by the characteristics of the initial report (Table 2). This is most likely at least partially due to small sample sizes in each sub-category. Patterns were similar among sub-categories for the 3-month or 12-month follow-up periods.

The logistic regression analysis revealed that the overall APSART risk score is significantly associated with an increased likelihood of a repeat report within 6 or 12 months (Odds Ratio 1.01 each, beta=0.006 and 0.007, respectively). For the 6-month follow-up period, a 10-point increase in APSART risk score was associated with a 6% increase in the odds of a repeat report, given the same worker. For the 12-month follow-up period, there is a 7% increase in the odds of a repeat report, given the same worker, for every 10-point increase in APSART risk score. The area under the receiver operator characteristic (ROC) curve indicates that, when controlling for the worker, the APSART score has fair predictive power regarding the probability of a repeat report within 6 or 12 months (AUROC=0.601 and 0.628, respectively; Figure 2a-b).

Table 2. APS clients with a repeat report of maltreatment within 6 months following a previous APS report, by previous disposition, abuse type, and APSART risk level. Values are n(%).

Previous Disposition/Abuse Type	APSART Disposition Risk Level			p-trend
	Low	Moderate	High	
Overall	5 (12.8)	34 (19.8)	39 (24.7)	**0.036**
Disposition Score				
Unfounded	3 (100.0)	10 (41.7)	9 (29.0)	**0.037**
Need no longer exists	0 (0.0)	11 (45.8)	11 (35.5)	0.864
Need exists - accepts services	0 (0.0)	1 (4.2)	7 (22.6)	**0.046**
Need exists - refuses services	0 (0.0)	2 (8.3)	4 (12.9)	0.427
Type of Allegation*				
Abuse (Mental, physical, and/or sexual)	1 (20.0)	7 (20.6)	6 (15.4)	0.597
Neglect - Other	1 (20.0)	9 (26.5)	18 (46.2)	0.066
Neglect - Self	3 (60.0)	14 (41.2)	19 (48.7)	0.910
Exploitation (Financial and/or other)	0 (0.0)	9 (26.5)	5 (12.8)	0.597
Type of Substantiated Maltreatment*				
Any substantiated maltreatment	2 (40.0)	22 (64.7)	28 (71.8)	0.193
Abuse (Mental, physical, and/or sexual)	1 (20.0)	2 (5.9)	6 (15.4)	0.535
Neglect - Other	0 (0.0)	3 (8.8)	9 (23.1)	0.055
Neglect - Self	1 (20.0)	13 (38.2)	15 (38.5)	0.605
Exploitation (Financial and/or other)	0 (0.0)	6 (17.6)	2 (5.1)	0.367

Subcategories are not mutually exclusive; one individual may have more than one form of alleged or substantiated maltreatment

Figure 2a. ROC curve for the outcome of repeat report within 6 months, as predicted by the initial APSART risk score and worker. AUROC=0.601 (95% CI: 0.528,0.674); p=0.006.
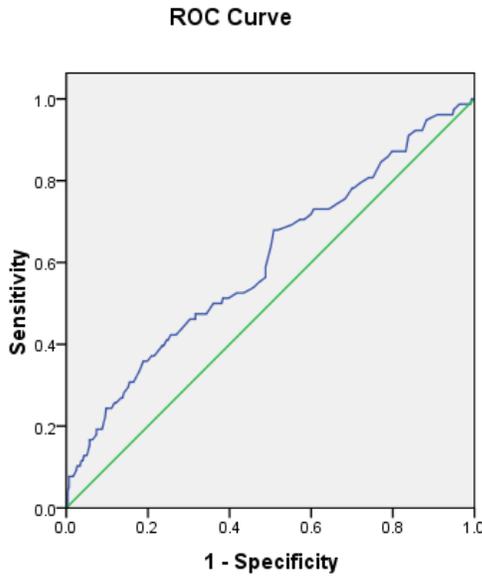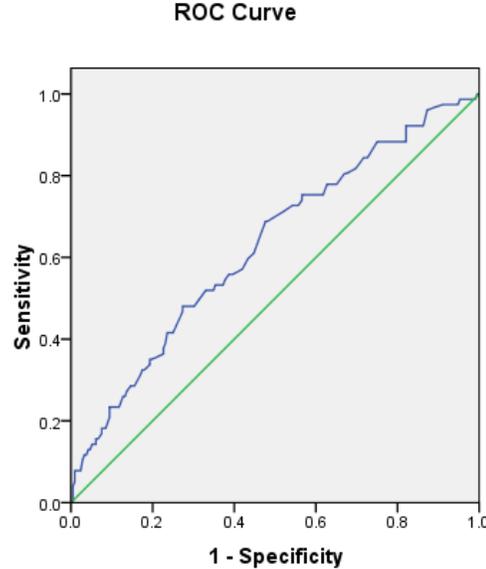
Figure 2b. ROC curve for the outcome of repeat report within 12 months, as predicted by the initial APSART risk score and worker. AUROC=0.628 (95% CI: 0.555,0.701); p=0.001.

Inter-rater Reliability Testing

There is noticeable variation in the distribution of APSART risk scores assigned by each worker (Table 3). Due to differing skill sets and seniority among workers, this may partly be due to purposeful decisions to assign more difficult cases to specific workers.

Table 3. APSART level at disposition, by worker.

Worker	Overall	None	Low	Moderate	High
1	44 (11.4)	1 (2.3)	2 (4.5)	13 (29.5)	28 (63.6)
2	72 (18.6)	1 (1.4)	8 (11.1)	35 (48.6)	28 (38.9)
3	71 (18.6)	3 (4.2)	4 (5.6)	26 (36.1)	39 (54.2)
4	59 (15.2)	0 (0.0)	12 (20.3)	37 (62.7)	10 (16.9)
6	69 (17.8)	1 (1.4)	8 (11.6)	42 (60.9)	18 (26.1)
7	28 (7.2)	0 (0.0)	2 (7.1)	13 (46.4)	13 (46.4)
8	41 (10.6)	0 (0.0)	3 (7.3)	13 (31.7)	25 (61.0)

The inter-rater reliability testing confirmed that there is notable variation in the overall risk scores assigned by different workers, even when given the same fictional scenario. The mean overall score was 103.7 with a standard deviation of 34.0 (Table 4). The overall ICC was low at 0.428. This scoring discrepancy, and the associated ICC values, varied across sub-categories. The Environmental Health subcategory scores had the highest ICC (0.946), followed closely by Mental Health (0.889) and Physical Health (0.859). These values indicate a high level of agreement among different scorers, resulting in minimal measurement error for these subcategories. The Support System scores had the lowest ICC, at 0.514.

Table 4. Intraclass Correlation Coefficients (ICC), overall and for each APSART sub-score.

APSART Category	Mean Score (SD)	Intraclass Correlation Coefficient	95% CI
Overall	103.7 (34.0)	0.428	(-0.029, 0.899)
Physical Health	17.4 (7.8)	0.859	(0.567, 0.983)
Mental Health	10.6 (8.4)	0.889	(0.641, 0.987)
Cognitive Functioning	16.3 (11.1)	0.711	(0.173, 0.964)
Environmental Risks	12.6 (12.0)	0.946	(0.820, 0.994)
Support System	14.6 (10.7)	0.514	(-0.104, 0.931)
Abuse/Neglect/Exploitation Factors	18.0 (8.7)	0.686	(0.097, 0.961)
Economic Resources	9.1 (9.5)	0.612	(-0.047, 0.950)
Alleged Perpetrator	5.1 (9.8)	0.659	(0.101, 0.956)

Qualitative discussion following the IRR testing revealed specific areas of confusion that can be modified. For instance, the current Alleged Perpetrator category systematically excludes self-neglect cases. While many workers chose to skip this category for self-neglect cases, some selected the "other" field for what they judged to be the appropriate risk level. Additional discussion focused on defining certain terms (i.e. environment) and what to do if there is not enough information to assess one or more categories.[3]

Conclusions

Overall, our study revealed that the APSART score is a valid predictor of risk of a repeat APS report. However, our results are likely an underestimate of the true validity of the APSART, given the low overall inter-rater reliability. It will be important to adapt the tool and/or provide additional training to improve reliability in those areas with low ICC values. It was clear from the IRR testing that some workers provided consistently higher or lower scores; these data have been provided to the unit supervisor to address on an individual basis.

That scores are skewed so strongly toward the "high" risk level also raises the question of whether the scoring system should be recalibrated. It is possible to have a score as high as 240, but the cut-point for being categorized as "high risk" is a score of 80. The moderate risk category has a score range of 40 points, whereas the low and no risk categories each only capture a 10-point range of scores. It is worth considering broadening the low and moderate risk categories in order to achieve a more normal score distribution. This would mean a more sensitive tool, which would better meet the APS Unit's needs for assessing change in client risk over time.

If re-evaluating the scoring system, we should consider possible interaction between the risk categories, in order to weight different combinations of risk factors appropriately. In other words, a combination of risk factors in two or more categories may result in higher risk than would be experienced based on each of those risk categories alone, and this may vary depending on the risk factors being combined. As it stands, if an individual is considered low risk in every sub-category, his or her overall score would be 80, which is categorized as high risk. Clearly, this is

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3 As of the writing of this report, all 5 scenarios had not been fully discussed, due to time constraints. Plans are in place to complete this exercise and make appropriate changes in the near future.

an attempt to take into account the interaction issues discussed here, but it may be over-simplifying the relationships between risk factors and/or overstating the combined risk of "low" scores in all the sub-categories.

Yet despite the stated sensitivity and reliability concerns, our testing indicates that the APSART score does appear to be significantly associated with the likelihood of a repeat APS report. In other words, we can be confident that individuals with a high score are indeed at a higher risk of having a repeat report of maltreatment than individuals with a low score. However, if changes are made based on the weaknesses identified here, it will be important to re-test the validity and reliability of the tool.