

Fairly-Decided Maltreatment Determinations Significantly Reduce Recidivism? A Quasi-experimental Evaluation of a System-Level Intervention Implementation

Amy M. Smith Slep (✉ amy.slep@nyu.edu)

New York University <https://orcid.org/0000-0002-6321-1740>

Richard Heyman

New York University

Danielle Mitnick

New York University

Michael Lorber

New York University

Sara Nichols

New York University

Daniel Perkins

Pennsylvania State University Main Campus: The Pennsylvania State University - University Park Campus

Short report

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Abstract

Background. This study examined the impact of the implementation of the Field-tested Assessment, Intervention-planning, and Response (FAIR) system for maltreatment determination on two measures of family maltreatment.

Methods. The 10 U.S. Army installations with the largest caseloads participated. Data were collected when Family Advocacy Program staff used the then-in-place system and then the FAIR system. Cases in each system were followed for six months following their abuse determination to measure the probability of subsequent allegations. Additionally, at five installations, alleged victims of partner abuse were recruited into a confidential study in which they anonymously reported on intimate partner violence via telephone.

Results. Both studies found that the FAIR system results in decreased recidivism, measured through subsequent formal reports and anonymous victim reports.

Conclusions. This study replicates and extends earlier findings that employing the FAIR system can result in decreased family maltreatment re-offense.

Background

Family maltreatment is a public health burden, costing billions and causing acute and long-term physical, mental, and behavioral impacts¹. Systems responsible for addressing maltreatment have had only modest impacts with one exception: The FAIR (Field-tested Assessment, Intervention-planning, and Response) system – a multi-component approach (i.e., a system-level intervention) involving assessment, training, criteria, and computerized decision making – has evidence of reliability² and validity³. FAIR's criteria were adapted for the International Classification of Diseases, 11th Edition (ICD-11)⁴ and the Diagnostic and Statistical Manual of Mental Disorders–5th Edition (DSM-5)⁵.

FAIR was developed through a program of research with the United States Air Force (AF) Family Advocacy Program (FAP) to develop criteria and procedures for reliably and validly making partner and child maltreatment (comprising abuse [physical, psychological, and sexual] and neglect) determinations. FAP is the military equivalent of civilian Child Protective Services but has responsibility for both child and partner maltreatment prevention, assessment, and intervention.

FAIR is unique in healthcare. First, most behavioral disorder determinations have poor inter-rater agreement⁶. In contrast, FAIR results in 90% agreement with master reviewers². Second, determinations under FAIR are perceived as fair to alleged offenders and victims by stakeholders⁷. Third, FAIR shows evidence of negligible systematic bias⁸. Finally, compared to a previously existing system, FAIR cut one-year re-offense rates for those who met criteria in half⁹, suggesting a tertiary preventive effect of a fairer and more consistent system.

The preventative effect of the FAIR system was found in a quasi-experimental study of the AF. It cannot be ruled out that another factor, such as decreased reporting of maltreatment to authorities, contributed to the reduction in re-offense. The purpose of this study was to replicate and extend the evaluation of FAIR's preventive impacts. The study was conducted in the U.S. Army, where the FAIR criteria had been implemented but without recommended training, structured assessments, or re-organized committee determination processes that were also part of FAIR. In this study, we compared the Army's system, Case Review Committee (which included only the FAIR criteria), with fully implemented FAIR system (including criteria, training, assessment, and re-organized committees). We hypothesized that cases processed through the FAIR system, compared with the existing system, would have lower rates of alleged re-offense and adult victims would report less subsequent victimization. This paper was prepared using the Standards for Reporting Implementation Studies checklist¹⁰.

Study 1

Method

Permission to collect data was obtained from the Army's Human Research Protection Office, and [blinded] Institutional Review Board approved the study protocol. All Army sites directed to participate in the research project (and FAIR implementation) did so.

Research staff reviewed FAP records ($N = 14,611$) at 10 Army installations with the largest FAP caseloads and collected data on re-offense. Records were randomly selected during Case Review Committee ($n = 9,491$) and the FAIR system ($n = 5,120$) implementations. In all cases, Case Review Committee implementation preceded FAIR implementation. Records were coded in the 6-months following substantiation decisions for (1) whether any new allegations were recorded, and (2) the number of new allegations. The 6-month follow-up period was chosen as the longest period possible within the practical constraints of the study length. Records were sampled to provide sufficient power to detect differences in re-offense.

Results

A chi-square test of independence and an independent-samples t -test indicated that Soldiers and family members who met criteria for partner abuse under the FAIR system were significantly less likely to re-offend within six months (any new allegations: 9.2% Case Review Committee vs. 7.2% FAIR, $\chi^2 [1] = 10.62, p < .01$; number of new allegations: $M = 0.17, SD = 0.66$ Case Review Committee vs. $M = 0.12, SD = 0.51$ FAIR, $t [7,962] = 3.77, p < .001, 95\% CI: 0.02$ to $0.07, d = 0.08$).

Study 2

Methods

Soldiers or family members ($N = 88$) who were identified by FAP social workers as likely victims in episodes of intimate partner physical, psychological, or sexual partner abuse; $n = 46$ participants were recruited during Case Review Committee and $n = 42$ during FAIR.

Social workers at five installations referred alleged victims to a researcher to provide information, obtain consent, and assign a personal identification number (PIN) to access the automated Repeat Incident Survey administered by Northern Illinois University. Half of our sites in the full study were assigned to this protocol, and half to a protocol recruiting families to participate in a different aspect of the evaluation. Site workflow dramatically affected recruitment such that when sites were busy, social workers were unable to refer alleged victims to learn about the study. Participants were asked to call weekly for four weeks; then monthly for six months. Participants were paid \$10 to hear about the study and an additional \$10 was uploaded to a prepaid debit card each time a call was made with their assigned PIN (up to \$110).

All responses involved pushing “1” for “yes” and “2” for “no” and were anonymous. The automated assessment included 8 items measuring partner abuse based on the definitions of partner abuse in ICD-11⁴ and DSM-5⁵). Partner abuse (Table 1) was scored as present or absent.

Results

Survival and logistic regression analyses were conducted with Mplus version 8. For both models, *SEs* were adjusted for participants’ nesting within base using a sandwich estimator¹¹.

A Cox proportional hazards model¹² was estimated in which time to recidivism was regressed on condition. Time to recidivism was significantly lower for cases determined via Case Review Committee vs. FAIR, $B = -0.337$, $SE = 0.064$, $p < .001$, 95% CI: -0.462 to -0.212 (Figure 1). Median time to recidivism was 33.48 (Case Review Committee) versus 90.10 (FAIR) days.

A logistic regression model was estimated in which abuse was regressed on condition. The adjusted odds ratio for the condition effect was .361 ($SE = .033$, $p < .001$, 95% CI: 0.311 to 0.432). Based on predicted probabilities, recidivism was 1.54 times as likely in Case Review Committee versus FAIR (69.55% vs. 45.21% of participants reported recurring abuse).

Discussion

Results replicate and extend prior findings that the FAIR system for making maltreatment determinations results in notable tertiary preventative effects. This is consistent with findings from the U.S. Air Force studies⁹. One concern following the earlier study had been whether the FAIR system, rather than reducing the probability of subsequent maltreatment, instead reduced the probability of maltreatment reports. Findings from the anonymous victim report suggest this is not the case.

No other field-tested maltreatment definitional criteria are in the literature, and other systems for maltreatment determinations have notable shortcomings. The FAIR system appears to improve upon standard practice. Although designed for use in the U.S. military has been ported over to one state child welfare system with seeming success. Translation to very large maltreatment systems might require tailoring of the FAIR system. Notably, however, this study took place in the 10 largest U.S. Army installations, which care for nearly 50,000 Soldiers and their families. These settings are likely as demanding as many local civilian child welfare settings. Furthermore, the structure of FAIR includes training in assessment and the structured system, criteria, and computerized decision making tools, which could reasonably be expected to improve standard practice.

As with all studies, this study has several limitations. This study, as with the prior evaluation, used a quasi-experimental design. This is not likely to affect the prevention effects, as families would generally have little or no awareness of historical or upcoming changes to the processes used in their cases. The generalizability of the prevention effects to civilian contexts requires empirical evaluation. The sample size in Study 2 was small, and it may not be representative of all victims. Because these data are anonymous, we cannot evaluate whether participants' initial maltreatment cases differed from those not invited to participate or those who chose not to participate. Given the small sample size, the consistency of the findings should be highlighted, however. Finally, these results cannot be considered indicative of the potential prevention impacts of a FAIR implementation in civilian contexts without the necessary evaluation.

To date, the FAIR system has been implemented across the U.S. military and Alaska¹³. Given the impact of the FAIR system in reducing subsequent incidents maltreatment, wider dissemination of the FAIR system to make substantiation determinations in U.S. and international jurisdictions should be considered.

Conclusions

Clear and consistent decisions about whether alleged incidents of child maltreatment or intimate partner abuse are founded contribute to the perceived fairness of the process and support bright-line distinctions about what constitutes maltreatment, which in turn, support healthy community norms around parenting and intimate relationships. Although not all families who encounter formal systems are able to learn and apply the distinction between maltreating and non-maltreating behaviors, some can. Given that FAIR is a population-level system that reduces re-offense without added time or expense to the system or the families once implemented, the reduction in injury, mental health and developmental consequences, and mortality is potentially substantial.

The FAIR system is implemented via policy throughout the U.S. Department of Defense and the state of Alaska. Standardized trainings, automation systems, and quality assurance systems have been developed and are being routinely used in most settings, with no support from the system developers. This suggests the potential for sustainability is high.

Abbreviations

FAIR Field-tested Assessment, Intervention-planning, and Response

U.S. United States

ICD-11 International Classification of Diseases, 11th Edition

DSM-5 Diagnostic and Statistical Manual of Mental Disorders–5th

FAP Family Advocacy Program

CI Confidence Interval

SE Standard Error

M Mean

Declarations

Ethics approval and consent to participate: Protocols were reviewed and approved by New York University's Institutional Review Board (IRB-FY2016-250 and IRB-FY2016-750) and the U.S. Army Medical Research and Development Command's Human Research Protections Office (A-19390.6 and A-19390.5a).

Consent for publication: Not applicable

Availability of data and materials: These data were collected as part of a Cooperative Agreement with the U.S. Army. The data that support the findings of this study are available from U.S. Army Family Advocacy Program, but restrictions apply to the availability of these data, such that private information is protected and Human Research Protections Office protections are maintained, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of U.S. Army Family Advocacy Program.

Competing interests: None

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Authors' Contributions: AS, RH, and DM conceived of and designed the study; AS, RH, DM, SN, and DP lead the acquisition of the data; DM and ML conducted data analyses; all authors contributed to the interpretation of data; all authors have drafted and edited the manuscript and all have approved the submitted version of this paper.

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Disclaimer: The views expressed are solely those of the authors and do not reflect the official policy or position of the U.S. Army.

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Tables

Table 1

Automated Interview Intimate Partner Violence Items

Category/Construct	Question
Acts	
Psychological intimate partner violence ^a	Has your partner called you hurtful names, threatened you, yelled at you, or attempted to prevent you from seeing other people or from leaving the house?
Sexual intimate partner violence ^c	Did your partner do something sexual to you against your will? That is, did your partner touch you sexually or force you to have sexual relations when you didn't want to?
Weapon use/threat ^c	People can use many objects as weapons, including guns and knives but also many household objects. Has your partner used something as a weapon to harm you or threatened to harm you?
Physical intimate partner violence ^b	Has your partner been physically aggressive toward you without using weapons? For example, has your partner pushed you, grabbed you, hit you, kicked you, or scratched you?
Impacts	
Fear of partner ^{a,b}	Have you been afraid of your partner?
Distress/stress ^{a,b}	Has your partner's behavior toward you caused you to feel very distressed or stressed out, or caused you to experience stress-related physical symptoms such as migraines or stomach aches?
Injury potential ^b	When your partner was physically aggressive toward you, was the situation so risky or dangerous that it was likely that you could have been hurt more severely than you were?
Injury ^b	When your partner was physically aggressive toward you, did your partner cause any injuries to you, including marks, bruises, scratches, cuts, or other injuries, or pain that lasted at least 4 hours?

Note. Abuse was scored as present based on combination of acts and impacts with matching superscripts (^a and/or ^b); ^c in the case of sexual intimate partner violence and weapon threat/use, abuse

was scored as present based on the acts alone.

Figures

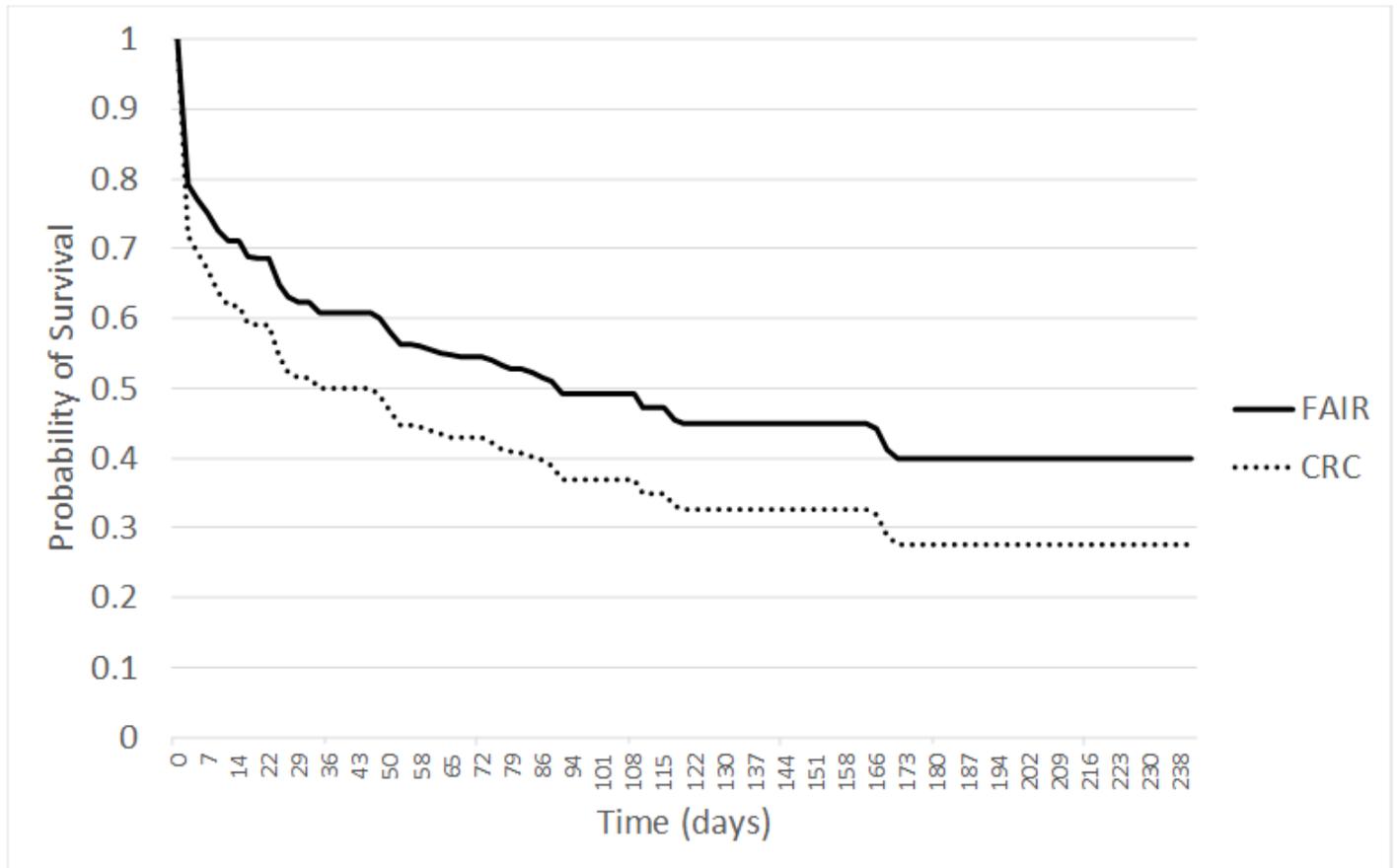


Figure 1

Survival by condition.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [StaRlchecklistArmyrecidivism.docx](#)