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Bringing Research Into Practice: An Evaluation of Michigan's Sexual Assault Kit

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Abstract

The importance of research-informed practice for the field of sexual assault has been stressed by academics and practitioners alike. However, there are few examples of researcher–practitioner partnerships in the literature, therefore providing minimal guidance for this process. This article describes a researcher–practitioner partnership that was successful in using evaluation data to guide practice and policy decisions regarding the development and implementation of a new sexual assault kit for the state of Michigan. Cousins's practical participatory evaluation theory was used as the guiding framework for the evaluation. Data collection methods included focus groups with practitioners from five, regionally dispersed health care settings in Michigan, and surveys with forensic scientists throughout the state's regional laboratory system. This case study highlights how researchers and practitioners worked together for data collection, analysis, and dissemination to support research-informed practice in this state. Lessons learned and

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future recommendations for forming researcher–practitioner partnerships to improve the response to sexual assault are discussed[1].

Keywords
rape kit, sexual assault kit, evaluation, science–practice gap, research-informed practice

Sexual assault is a pervasive problem, as national epidemiological data suggest one in five women will be sexually assaulted in their lifetime (Black et al., 2011; Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007; Tjaden & Thoennes, 2006). Following this traumatic experience, survivors may choose to access services from the criminal justice and/or medical systems (Campbell, 2008; Clay-Warner & McMahon-Howard, 2009; Du Mont, White, & McGregor, 2009). Regardless of which system victims encounter first (legal or medical), the interdependent nature of these services will likely result in contact with both systems; if presenting at the hospital, survivors are often strongly encouraged to report to police, and if filing a police report, survivors are often transported to a hospital for health care and forensic evidence collection (Martin, 2005). In fact, it is the medical forensic exam (MFE) that frequently dominates victims' post-assault help-seeking experiences, with a particular focus on the sexual assault kit (SAK) (Martin, 2005). The MFE includes the collection of the patient's clothing, a complete head-to-toe physical examination; a visual assessment of the genitals for trauma; specimen collection from body surfaces such as skin, hair, nail clippings, and points of contact with the perpetrator; and blood draw and urine samples for drug analysis (Campbell, Patterson, & Lichty, 2005; U.S. Department of Justice, Office on Violence Against Women, 2013). The SAK is a major component of the MFE as it provides step-by-step instructions and necessary equipment (e.g., swabs, envelopes)[2] for the collection of forensic evidence.

The SAK used in the state of Michigan had not been updated since the 1980s, which was concerning given the key role the SAK can have in a criminal justice system investigation and prosecution (see, for example, Strom & Hickman, 2010). As part of several statewide initiatives to improve care for sexual assault survivors and to institute evidence-based practices (Sexual Assault Resource Analysis [SARA] Project (PI: Campbell, R.), 2009, 2010, 2011), state leaders convened a collaborative working team to develop a new SAK. Recognizing the need for research-informed practice, a team of researchers from Michigan State University was asked to evaluate the efficacy of the newly redesigned SAK. State partners agreed to produce a limited

number of newly redesigned SAKs to be used on a pilot basis for evaluation purposes. The evaluation findings would then be used to inform the final revisions of the SAK prior to its statewide dissemination. The purpose of this article is to describe this practitioner-focused, research-informed collaborative project and to showcase how evaluation theory was used to guide key decisions made throughout the process. Before presenting this case study example, we will provide a brief review of the literature on the "science–practice gap" and how it manifests in sexual assault research and services. Then, we will present researcher–practitioner partnerships as one way of attending to this science–practice gap and acknowledge the dearth of examples and case studies in the current literature on forming and implementing these partnerships.

The need for research-informed practice in the response to sexual assault has recently received significant attention (see Backes, 2013; Koss, White, & Kazdin, 2011; Office for Victims of Crime [OVC], 2013; U.S. Department of Justice, 2011). The OVC released a report in 2013 documenting the "urgent need to expand the knowledge base . . . about effective response" to sexual assault and identified "research, development of evidence-based practices, and program evaluation as the foundation" of this knowledge, and "of successful victim services policy and practice" (p. 1). The OVC was not alone in identifying the need for research and evaluation to inform sexual assault services. The National Institute of Justice (NIJ) also prioritized "creating a cumulative knowledge base" through "supporting research grounded in science and theory" (Backes, 2013, p. 748) to have a better understanding of sexual victimization and also to improve the response for survivors. Both OVC and NIJ noted the substantial "science–practice gap" in the community response to sexual assault: Science could be providing empirically informed data and resources to improve practice, but practice continues to operate independently from scientific research and scholarship (see also Kazdin, 2008; Miller & Shinn, 2005; Wandersman, 2003). In fact, Koss et al. (2011), in reviewing sexual assault services, found that the majority of programs and interventions have not been adequately evaluated. So although services may be available to survivors of sexual violence, it is frequently unknown whether these services are fulfilling their intended purpose.

Both OVC (2013) and NIJ (Backes, 2013) recommend the formation of researcher–practitioner partnerships as one way to close this gap. These collaborations allow for researchers to develop a deeper understanding of the needs and perspectives of community practitioners while also allowing practitioners to be involved in framing research questions so that the resulting data are, in fact, policy-relevant and useful (McEwen, 2003; T. P. Sullivan, McPartland, & Fisher, 2013; Wandersman et al., 2008). In addition,

community practitioners may be more likely to adopt and use the products of the research as they are more relevant to the community and feel a sense of ownership in the findings (Amo & Cousins, 2007; Patton, 2008).

There are numerous published resources on strategies for creating research–practitioner partnerships in the community response to sexual violence (for example, see Davidson & Bowen, 2011). However, this literature *tells* how to form these partnerships, but does not *show* how it is actually done in practice. In other words, researchers have offered numerous insights into what *should be done* to form and be successful in operating researcher–practitioner partnerships and why, but case studies of what *has actually been done*—and to what successes—are generally lacking (cf. Busch-Armendariz, Johnson, Buel, & Lungwitz, 2011; M. Sullivan, Bhuyan, Senturia, Shiu-Thornton, & Ciske, 2005). Accordingly, if researcher–practitioner partnerships are to be a possible solution for addressing the science–practice gap, additional illustrative examples and case studies are warranted to model what this process looks like in action and to provide lessons learned and recommendations from these efforts.

A Multidisciplinary Approach: Using Evaluation Theory to Guide the Researcher–Practitioner Partnership Process

Before presenting the current case study, it is essential to first identify the framework that guided the evaluation and collaborative process. The field of evaluation has developed an array of theories to guide evaluation decision making from initial concept development through dissemination and use of the findings. Evaluation theories do not attempt to explain substantive phenomena by defining the relationships between related constructs; instead, "evaluation theories are intended to provide evaluators with the bases for making the myriad of decisions that are part of designing and conducting an evaluation" (Miller, 2010, p. 390). Cousins's practical participatory evaluation (P-PE) theory is one such model. In general, participatory evaluation is a collaborative process among individuals who have a stake in the evaluand (i.e., that which is being evaluated; Amo & Cousins, 2007; Cousins & Whitmore, 1998), and in particular, Cousins's P-PE theory is one variation that emphasizes the importance of evaluation *use* (Amo & Cousins, 2007; Cousins & Whitmore, 1998). P-PE was selected as the guiding framework for the Michigan pilot SAK evaluation because of its focus on collaborative, participatory processes that aid in the development and support of researcher–practitioner partnerships. P-PE also emphasizes the use of evaluation findings to improve practice.

P-PE's goals of practicality and use call for stakeholder participation from multiple groups to facilitate program, policy, and/or organizational decision making (Cousins & Whitmore, 1998). Stakeholders are typically defined as individuals with a vested interest in the evaluand (see Cousins & Whitmore, 1998, for a discussion). However, P-PE is flexible and maintains that stakeholder involvement may differ across projects with regard to who has *control of the evaluation process*: Decisions may lie entirely with the evaluator, or with the practitioners, or somewhere in between. Projects may differ in *stakeholder selection*: The evaluation may include any and all stakeholders with ties to the evaluand, or may be restricted to a select set of primary users. Finally, P-PE projects may differ in *depth of participation*: Stakeholders may act only as consultants with no actual decision-making power or responsibility, or they may play an essential role in all aspects of the evaluation. These dimensions are certainly related, but they can also be considered independent of one another (see Cousins & Whitmore, 1998). Wherein a specific project lies on each of these continua should be determined based on what will maximize *use of the evaluation findings and process*.

In this researcher–practitioner partnership, the research/evaluation team was tasked by state funders to "design and implement a statewide, multi-site evaluation on the use of the new sexual assault kit (SAK) to inform the development of a new statewide sexual assault protocol and improve the kit contents in the future." This objective placed the *control of the evaluation process* primarily with the evaluation team. The evaluation team drew on state agency stakeholders to understand how the new kit would be used across the state. Then, the evaluation team constructed an evaluation proposal that briefly outlined the design.[3] Once the proposal was approved by state partners, the evaluators maintained key decision making throughout the evaluation and elicited feedback from community partners throughout the process. Specifically, in terms of *stakeholder selection*, a select set of primary users including a sample of medical providers and crime lab personnel, as well as state policy makers, were active in the evaluative process. The evaluators chose to focus on a limited number of stakeholders because of the time-sensitive nature of the project. In addition, relatively few individuals are active in the response to sexual assault; it was important to not overtax this community by asking all stakeholders to be active in the evaluation.[4] Finally, stakeholder's *depth of participation* varied; medical providers and crime lab personnel were purposively selected to provide expert consultation that could best inform evaluation findings, ultimately promoting use whereas state policy makers were responsible for key decision making leading up to and including statewide dissemination of the new SAK.

Our primary goal was to produce findings on the usability of the newly redesigned SAK for both medical providers conducting sexual assault forensic exams and for forensic laboratory personnel processing and analyzing the SAK contents. We needed to assess whether the pilot SAK was user friendly, efficient, and appropriate for experienced and new practitioners alike who would be using it to conduct a sexual assault MFE (i.e., medical providers) or analyzing its contents post collection (i.e., forensic lab personnel). We also needed to know ways in which the pilot SAK could be improved—what in the pilot SAK is working? What is not working? What else could be provided (or changed, or removed) to make the job of medical providers and lab personnel easier, more efficient, and more accurate? These findings could then be used to inform policy decision making, specifically the revision of the pilot SAK for statewide dissemination. Of utmost importance was that the findings attended to the specific information needs of the practitioners responsible for the creation and implementation of the new SAK (e.g., adequate detail of recommended changes) and that the findings were amenable to immediate and direct use in guiding this statewide change effort (i.e., presented in an easy-to-understand way).

Evaluating the Pilot SAK: Developing an Evaluation Design

Michigan is a geographically diverse state with its smallest county encompassing only 0.1% of the state's population (Alger county had 9,601 residents in 2010) and its largest county encompassing nearly 20% of the state's population (Wayne county had 1,820,584 residents in 2010; U.S. Census Bureau, 2010). Accordingly, it was important to represent urban, rural, and mid-sized communities in the evaluation.[5] In addition, several different health care settings and health care providers routinely conduct MFEs with the SAK. Survivors may be treated by sexual assault nurse examiners (SANEs). SANEs are unique in that they have received specialized training in the intricacies of forensic evidence collection, expert witness testimony, and patient-centered trauma-informed crisis intervention and care (U.S. Department of Justice, Office on Violence Against Women, 2013). SANEs may provide their services in a hospital or may operate independently in a community-based setting. Alternatively, survivors may be treated by traditional hospital emergency departments by physicians or physician assistants. Therefore, to understand the usability, utility, and quality of the new SAK, it was necessary to pilot test it across these different community settings (i.e., urban, rural, or mid-sized), health care settings (i.e., hospital- or community-based), and health care providers (i.e., SANE or non-SANE). The evaluation team, in conjunction with

Table 1. Contextual Elements of Selected Medical Sites.

Site	Hospital vs. Community	SANE vs. Non-SANE	City Population/ County Population in 2010[a]
Site A	Community	SANE	57,236/1,202,362
Site B	Community	SANE	188,040/602,622
Site C	Hospital	SANE	14,482/86,986
Site D	Hospital	SANE and non-SANE	102,434/425,790
Site E	Hospital	non-SANE	21,355/67,077

Note. SANE = Sexual assault nurse examiner.
[a]U.S. Census Bureau (2010).

our state partners, purposively selected five sites throughout Michigan. The selected sites used the pilot SAK kits from early June 2011 through August 2011 (i.e., the newly designed, pilot SAK was used for any/all sexual assault patients presenting for care and consenting to forensic evidence collection). Pertinent contextual information regarding the five selected sites is presented in Table 1.

The Michigan State Police has seven regional crime labs throughout the state, and any of those could have received a completed pilot SAK from one of the five selected medical sites that participated in the evaluation. In the end, six of the seven labs received a pilot SAK, and therefore were collaborative data collection sites for this evaluation.[6] During the two months of pilot SAK implementation at the five selected medical sites, the crime labs were asked to recognize all incoming pilot kits (identified with a red dot), analyze the kits according to standard procedures, and complete a lab tracking survey tool for each pilot SAK analyzed (described below). The tracking tool documented what was collected in each SAK, whether it was collected appropriately, and if evidence was not collected appropriately, what was the nature of the problem (e.g., collected when it was unnecessary, not collected when it was necessary, too many swabs used per collection site).

After utilizing the pilot kits for two months, focus groups were conducted with each of the five medical sites (see Figure 1 for the medical provider focus group script). During these focus groups, the facilitator asked questions regarding the number of MFEs conducted with the new kit at each site, the medical providers' overall impression of the kit, the order of the content in the kits, the "widgets" (i.e., slides, smears, and swabs), the forms, and the instructions. The evaluators probed for information on what "worked" well in the pilot SAKs; what did not "work" so well; and what improvements could be made to improve the usability, efficiency, and accuracy of the SAK. For

1. **OPENING**
   - **Welcome**
   - **Background:** update MI's SAK (mention state partners); evaluation of new kit (mention funder); evaluation team/researchers contracted to do evaluation
   - **Purpose:** focus group (discussion) about experiences using kit; solicit feedback for changes to the kit; gather ideas for new state-wide protocol
   - **Introductions:** before get started, introduce everyone (go around room)
   - **Housekeeping:** breaks, ending time
2. **USE OF NEW KIT AT (THIS FACILITY)**
   - **Provider use:** how many people in group performed exam with new kit?
   - **Patient population served:** how many kits have been performed & patients' ages?
   - **Case characteristics:** anything unusual/different about cases that had new kits?
3. **MEDICAL PROVIDERS' GENERAL IMPRESSSIONS OF KIT**
   - **Overall assessment:** how like it? improvement over existing kit?
   - **Utility/ease of use:** from your perspective as medical provider, how easy is it use?
     - Are kit contents in a logical order (an order that correlates with the assessment)?
     - Efficiency of kit (including time)
     - Personnel's comfort with the kit
4. **SPECIFIC FEEDBACK ABOUT KIT COMPONENTS**
   - **Kit Contents (i.e., "innards"):**
     - Organization of kit (envelopes and labeling schemes of kit)
     - Does the kit contain enough widgets (envelopes, swabs etc.) for adequate evidence collection?
     - Any changes need to be made?
   - **Forms:**
     - Instructions (clear and easy to follow?)
     - Do forms appropriately guide execution of the kits?
     - Any changes need to be made?
   - **Chain of evidence:** Any concerns/problems re: chain of evidence with new kit
5. **IMPACT OF NEW KIT ON PATIENT EDUCATION**
   - **Patient education:**
     - How does new kit help educate patients about key changes in law re: billing
     - How does new kit help educate patients about [program for paying for MFE]?
     - How does new kit help educate patients about reporting/cooperating with law enforcement?
     - [For each, probe what needs to be revised to facilitate patient education

(continued)

Figure 1. (continued)

6. IMPLICATIONS FOR NEW PROTOCOL

- **Protocol:**
  - Pilot kits were implemented w/out an accompanying protocol; how did that work?
  - Will a protocol be useful? (or will people just open up box & go?)
  - How do we ensure protocol will be known and followed?
  - From your experiences using new kit, what are key things protocol must include?
- **Training:**
  - Pilot kits were implemented w/out any training; how did that work out?
  - What do you recommend re: training on new kit (when goes state-wide)

7. CLOSING

- **Next steps:** focus groups in 5 sites; compile feedback; provide report to funders; depending on magnitude of suggested revisions, may be straight-forward to revise, may need to convene work group; will keep you posted
- **Keep using new kits:** if run low, let us know;
- **Thank group for time, feedback, & expertise**

Figure 1. Medical provider focus group script.
Note. SAK = sexual assault kit; MFE = medical forensic exam.

example, *were the instructions easy to follow? Were the kit contents in a logical order? Were there enough specimen envelopes in the kit?* During all focus groups, the evaluation team maintained a running transcript of the discussion and notes specific to recommended changes to the kit.

In addition to the five medical provider focus groups, the evaluation team hosted one focus group with crime lab personnel (see Figure 2 for the crime lab focus group script). During this focus group, the facilitator asked questions regarding the crime lab technicians' overall impression of the kit, the widgets, the forms, and the instructions, and relayed specific questions from the medical provider focus groups. For example, *did the labeling on the exterior of the specimen envelopes provide enough information? Did the target rings on the slides provide improved samples? Were the forms filled out correctly so as to guide analysis?* Again, the evaluation team maintained a running transcript and notes specific to recommended changes to the kit.

Evaluating the Pilot SAK: Producing and Using the Evaluation Findings

The transcripts from each of the medical provider focus groups were reviewed to identify what health care providers felt "worked" well in the pilot SAKs

1. **OPENING**
   - **Welcome**
   - **Background:** update MI's SAK (mention state partners); evaluation of new kit (mention funder); evaluation team/researchers contracted to do evaluation
   - **Purpose:** To provide feedback and key insights into proper kit completion. Feedback can also be used to reflect on medical provider's feedback for any discrepancies.
   - **Introductions:** before get started, introduce everyone (over the phone)
   - **Housekeeping:** will be "calling on people" to make sure hear from everyone; ending time
2. **TECHNICIAN EXPERIENCE WITH THE NEW KIT (BRIEF)**
   - **Technician experience:** how many people have analyzed one of the new kits?
   - **Case characteristics:** anything unusual/different about cases that had new kits?
3. **GENERAL IMPRESSIONS OF THE NEW KIT (BRIEF)**
   - **Overall assessment:** how do you like it? Improvement over existing kit?
   - **Utility/ease of use:** from your perspective, any concerns/ recommendations that would make analysis of the kit easier for forensic scientists?
4. **TECHNICIAN FEEDBACK ON HOW WELL MEDICAL PROVIDERS PERFORMED KIT**
   - **External Labeling :** Is this being filled out correctly?
   - **Overall Kit Contents (i.e., "innards"):**
     - Does the kit contain enough widgets (envelopes, swabs etc.) for adequate evidence collection?
     - Organization of kit (envelopes and labeling schemes of kit)
     - What order are the kits in when they arrive? How does this affect processing?
   - **Envelopes**
     - Appropriate labeling?
     - Size?
   - **Swabs and Smears:**
     - Are they being collected correctly?
     - QUESTION FROM MEDICAL PROVIDERS TO LAB: for the vaginal/cervical swabs/smears, do they need to be separated? Is one location better than another (there is WIDE variation in what providers are doing in practice)
     - Discuss: for anal/rectal swabs/smears, it is appropriate to have "rectal"? Would anal/perianal work?
     - Discuss: an anal/perianal swab would be appropriate in vaginal assaults due to seepage; what is best way to ensure that is collected?

(continued)

Figure 2. (continued)

- **Reference and Combings Head and Pubic Hairs?**
  - Are they being collected correctly?
  - Discuss: plucking vs. cutting (providers' feedback preference for cutting)
  - Discuss: if plucking, obtaining reference sample at LATER time
  - Discuss: if patient does not have pubic hair (best way to address this?)
- **Forms:**
  - Are they being filled out correctly?
  - Any changes need to be made?
- **Chain of evidence:** Any concerns/problems re: chain of evidence with the new kit

5. IMPLICATIONS FOR NEW PROTOCOL

- **Protocol:** What are key things a protocol must include?
- **Training:** What do you recommend re: training on new kit (when goes state-wide)

6. CLOSING

- **Next steps:** compile feedback; provide report to funders; depending on magnitude of suggested revisions, may be straight-forward to revise, may need to convene work group; will keep you posted
- **Keep analyzing new kits:** do not have to keep filling out tracking sheets
- **Thank group for time, feedback, & expertise**

Figure 2. Crime lab focus group script.
Note. SAK = sexual assault kit.

and what needed to be improved. If participants reported liking something in the kit or related to the kit (i.e., it worked), their comment was identified as a segment (see Henderson & Segal, 2013 for a discussion of identifying different types of "segments" in visualizing qualitative data). Each segment included what they liked (i.e., the item), and what they liked about it (e.g., it was easier to use, it was an improvement over the previous design, it sped up the process). All segments were then placed into a spreadsheet organized by item and by site. For example, all segments related to the forensic evidence collection swab envelopes were grouped together. Figure 3 provides a sample of this spreadsheet. This visual representation of the data allowed for a comprehensive understanding of what kit items were liked within and across sites. The same process of data coding and visualization was used to analyze the transcript from the crime lab focus group.

	They Liked The…	SITE A	SITE B	SITE C	SITE D	SITE E
Organization of the Kit	General Organization of the Kit.		The combing envelopes were all stacked up on side of the kit.	The instructions were on the top of the kit.		
Widgets	Paper Ruler.		Like the paper ruler.	Like the ruler.		Paper ruler is nice.
	Vulvar Swabs.			Like the vulvar swabs.		Vulvar vocabulary more accurately describes target area for swab.
	Drying Boxes.	Like the drying boxes.		Like the drying boxes.	Drying box is nice and preferred to using a styrofoam cup or other tool.	Like the drying boxes.
	Slides.	Like the slides.	Slides and target area are nice.	Like the pre-labeled and pre-set slides as it is convenient and saves time.	Like the pre-circled and pre-labeled slides.	Love the pre-labeled slides.
	Envelopes.	Like the envelopes.	Like the extra envelopes for misc. things and the areas to document findings.	Liked instructions on envelopes and combing envelopes.	Liked having swabs already placed in envelopes and instructions as to when sample is NOT appropriate.	Like extra envelopes and instructions as a reminder as to what to do and not do.

Figure 3. Sample of "medical provider likes" table.

Note. Additional color coding was used in all tables to aid in comprehension *across* documents (i.e., "organization of kit" header was colored orange across all tables; "widgets" was colored yellow across all tables).

The notes on proposed changes to the kit, as well as things that medical providers did not like about the kits, were then reviewed for each medical provider focus group. Each suggested change, along with its rationale, was identified as a segment. A spreadsheet was created that listed all suggested changes from all the medical provider focus group sites. For each segment, color coding was used to indicate whether each site agreed (green shading), disagreed (red shading), or did not comment on the recommended change (no shading). If the site disagreed with the suggested change (red shading), a note was inserted with the reason for their dissent. The resulting visual representation of the data allowed for a comprehensive understanding of what was suggested by each site, agreement in suggestions across sites, disagreement in suggestions across sites, and the reason for dissent. Figure 4 provides a sample of this visualization (an "X" is used to indicate a green shaded box in the sample).

Similarly, the notes on proposed changes from the crime lab focus group were reviewed and a spreadsheet was created that listed all segments of suggested changes from all crime lab sites.[7] Again, for each segment, color coding was used to indicate convergence (green shading), divergence (red shading; with an explanation), and where there was no comment provided by the site (no shading). In addition, the lab tracking sheets were reviewed and found to confirm the findings from the crime lab focus group. Figure 5 provides a sample of this visualization (an "X" is used to indicate a green shaded box in the sample).

The suggested changes provided by the medical providers and crime lab personnel were then reviewed by the evaluation team to determine whether the suggested changes should be recommended to the funder and key state partners for revision. To determine whether a suggested change should be recommended, the following criteria were used:

Tier 1: The recommendation had to be (a) logical, (b) follow the general principles of patient-centered care and consider patient comfort, and (c) align with any available empirical research or endorsements from (inter) national organizations specializing in the medical or victim advocacy fields (e.g., International Association of Forensic Nursing, American College of Emergency Physicians, National Sexual Violence Resource Center). If a recommendation did not meet the three criteria for Tier 1, it was not retained.

Tier 2: If the recommendation met all Tier 1 criteria, (a) the number of sites that were in agreement regarding the change and (b) which sites recommended the change along with the context of their practice were considered. Recommendations that met all Tier 1 criteria were generally

	Recommended Change	SITE A	SITE B	SITE C	SITE D	SITE E
Organization of the Kit	**Patient Brochure/SAFE Response:** Move patient brochure and SAFE response to top of kit (to remind to complete/provide).	X	X	X	X	X
	Order of Widgets: Place in order in which they are completed—oral, buccal, external genitalia, rectal/anal, vaginal, cervical (this will aid in completion of the kit).				X	X
	SAK Size: Increase the size of the box or decrease the size of the envelopes (everything does not fit in box).	X	X		X	
	Envelope Glue: Remove glue from envelopes (they should never be licked to be sealed).				X	
Widgets	**Barcode Label:** Add instructions onto the barcode label bag (not clear what it is for).	X		X		X
	Undergarment bag size: Increase the size of the tampon/diaper/sanitary napkin envelope (doesn't always fit).	X		X	X	X
	Body/Fingernail/Misc Envelopes: Change labeling so it requires the medical provider to indicate side of the body (left or right) AND body location (neck, breast, hand, or other____; this is not asked for in a consistent way).		X			
	Vaginal/Cervical Specimen: Clarify what needs to be swabbed for vaginal wall/cervical swab, if they need to be split apart or not, and provide accordingly (not sure how to complete to maximize evidentiary potential).	X	X	X	X	X
	Perianal/Anal/Rectal Specimen: Clarify what needs to be swabbed for perianal/anal/rectal, if they need to be split apart or not, and provide accordingly (not sure how to complete to maximize evidentiary potential).	X	X		X	
	Perianal/Anal/Rectal Specimen: Remove "rectal" entirely from swabs, smears, etc. (there is no need for these in most cases and may mislead).	X				

Figure 4. Sample of "medical provider recommended changes" table.

Note. Additional color coding was used in all tables to aid in comprehension *across* documents (i.e., "organization of kit" header was colored orange across all tables; "widgets" was colored yellow across all tables). SAK = sexual assault kit.

	Recommended Change	Site 1	Site 2	Site 3	Site 4	Site 5
Organization of the Kit	**Size of SAK:** Decrease the size of the swab envelopes so they match the size of the drying box (this will help everything to fit in the kit).		X		X	
Widgets	**Slide Target Area:** Enlarge the slide target area (it is not large enough to get enough cellular material).	X	X		X	
	Envelope Check Boxes: Create consistent labeling with either check boxes OR circling for swab location (it currently is consistent and may contribute to medical providers filing it out inconsistently). Check boxes (i.e., anal envelope) are preferred.					X
	Body/Fingernail/Misc Envelope Labeling: Include a space on the envelope to indicate what is being swabbed/collected and what the medical provider thinks might be found there (this is frequently not indicated anywhere).					X
	Perianal/Anal/Rectal Specimen: "Rectal" can be removed (there is usually no reason to do a full rectal; there is no reason for the crime lab to differentiate between anal and rectal—internal is internal).	X	X	X	X	X

Figure 5. Sample of "crime lab recommended changes" table.

Note. Additional color coding was used in all tables to aid in comprehension *across* documents (i.e., "organization of kit" header was colored orange across all tables; "widgets" was colored yellow across all tables). SAK = sexual assault kit.

not discarded when reviewing Tier 2 criteria; rather, these criteria were used to flag certain recommendations as requiring a closer examination with the next tier.

Tier 3: In Tier 3, (a) the practicality and feasibility of the implementation of the change and (b) the anticipated cost of the proposed change were considered. If a recommendation met all Tier 1 criteria, but was only recommended by a single specific context (criterion from Tier 2) and would be impractical or very costly to implement (Tier 3 criterion), it was not moved forward for further consideration.

The review of these tiers of recommendations was an iterative process. For example, a recommendation may have been articulated by only a few sites, but was both feasible and practical and so was included. Alternatively, a recommendation may have been articulated by most sites, but was not feasible or practical, so was not included. For example, only one medical site (Tier 2 requirement) recommended that the envelope labeling require the medical provider to indicate which side of the body a sample was taken from (i.e., left vs. right) and the specific location of the body (e.g., neck, breast, arm). However, this recommendation was logical and aligned with best practices (Tier 1), as well as was feasible (Tier 3), so it was included as a final recommendation. This review process resulted in a final list of combined recommended changes from the medical provider and crime lab personnel focus groups (see Figure 6). The tables of medical provider likes, medical provider recommendations, crime lab recommendations, and combined recommendations were all shared with the full collaborative stakeholder team so as to provide all available information that could assist in revising the SAK.

The primary aim of the pilot SAK evaluation was to determine the usability of the SAK across medical providers conducting the MFE and crime lab personnel analyzing the contents of the SAK. The evaluators set out to identify what in the pilot SAK "worked," what did not "work" so well and needed to be removed or revised, and what was missing from the SAK that would make it easier to use, more efficient, and more accurate on statewide dissemination. Providing detailed information on the specific recommendations from this evaluation is beyond the scope of this article, but in general, the majority of recommendations focused on changes to be made to the forms in the SAK (e.g., changes in working order of material, omission of needed information, inclusion of unnecessary information), followed by changes to be made to instructions in the SAK (e.g., changes in the order of the steps given, providing more explicit instruction on some steps); other recommended changes, although less abundant, related to the "widgets" or SAK accessories (e.g., changes to labeling on the envelopes, changes in the size or different items)

	Recommended Changes
Organization of the Kit	**Patient Brochure/SAFE Response:** Move patient brochure and SAFE response to top of kit with other paperwork (to remind to complete/provide).
	Order of Widgets: Place in order in which they are completed—oral, buccal, external genitalia, rectal/anal, vaginal, cervical (this will aid in completion of the kit).
	SAK Size: Increase the size of the box or decrease the size of the envelopes (e.g., the size of the swab envelopes could be decreased to match the size of the drying boxes; everything does not fit in box).
	Envelope Glue: Remove glue from envelopes and replace with self adhesive (they should never be licked to be sealed).
Widgets	**Barcode Label:** Add instructions label to the barcode bag (not clear what it is for).
	Undergarment bag size: Increase the size of the tampon/diaper/sanitary napkin envelope (items don't always fit).
	Body/Fingernail/Misc Envelopes: Change labeling so it requires the medical provider to indicate side of the body (left or right) AND body location (neck, breast, hand, or other____; this is not asked for in a consistent way); and what the medical provider thinks might be found there (this is frequently not indicated anywhere and the lab doesn't know what to screen).
	Slide Target Area: Enlarge the slide target area (it is not large enough to get enough cellular material).
	Envelope Check Boxes: Create consistent labeling with either check boxes OR circling for swab location (it currently is consistent and may contribute to medical providers filing it out inconsistently). Check boxes are preferred (e.g.; anal envelope).
	Perianal/Anal/Rectal Specimen: Remove the word "rectal" entirely from swabs, smears, envelope, etc. (there is no need for these in most cases and may mislead).
	Perianal/Anal/Rectal Specimen: Separate perianal swabs and smears from anal swabs and smears (perianal is *external* and should be collected in every case of vaginal penetration, even without anal penetration, due to vaginal leakage; anal is *internal* and should only be collected in the case of anal penetration).

Figure 6. Sample of "combined recommended changes" table.
Note. Additional color coding was used in all tables to aid in comprehension *across* documents (i.e., "organization of kit" header was colored orange across all tables; "widgets" was colored yellow across all tables). SAK = sexual assault kit.

and the overall organization of the SAK (e.g., order of materials in the SAK, size of the SAK).

The key outcome we wish to highlight in this article is the *use of the evaluation findings* (rather than the substantive changes to the kit itself). An evaluation has its value in its findings being used; "the original promise of evaluation was that it would point the way to effective programming" (Patton, 2008, p. 32). Cousins's P-PE was the guiding framework for this evaluation and emphasizes the importance of use with regard to the *evaluation findings* and the *evaluation process* (Amo & Cousins, 2007; Cousins & Whitmore, 1998). The present evaluation resulted in both. The greatest evidence of use was in terms of the *evaluation findings* being put into practice directly. As hoped and intended, key state partners revised the SAK in accordance with the evaluation recommendations prior to statewide implementation. Indeed, one state agency partner described the evaluation as a "*roadmap of exactly what we needed to fix, so we fixed it.*" This direct use and implementation of the evaluation findings into practice attends to the recent call for more research and evaluation to inform sexual assault services (Backes, 2013; Koss et al., 2011; OVC, 2013; U.S. Department of Justice, 2011).

Bridging the science–practice gap and encouraging future researcher–practitioner partnerships to produce research-informed practice, however, may include more than just direct use of the evaluation findings, but also a greater understanding of the *evaluation process and its value.* This too was evidenced in this evaluation as multiple state agency partners expressed how they now saw data in a different way, how "*good data can help us make better decisions*," and "*how data should be informing all the major decisions we make in victim services.*" Furthermore, this project catalyzed some stakeholders to think about their work on a more macro level and consider, "*what are we putting survivors through when they have an exam? Is each piece necessary?*" This reflection on survivor experiences with the SAK then informed changes to the kit. For example, stakeholders engaged in extended conversation regarding the utility of combing and plucking pubic hairs, in relation to the discomfort this may cause the patient. Ultimately, stakeholders decided to include collection envelopes in the SAK for pubic hair combings and reference samples (i.e., plucked pubic hairs) but provided explicit instruction that hair combing and plucking were optional and provided extensive detail on specific circumstances when it may be needed.

Looking Forward: Lessons Learned

This evaluation utilized a researcher–practitioner partnership so as to produce empirical evaluation findings that could, and did, inform on-the-ground

policy and practice. Through this process, the evaluators were able to see their work put to immediate use whereas practitioners (re)realized the benefit in having research evidence for the work they do. This project evidences the effectiveness of forming collaborative efforts between researchers and practitioners to produce science-informed practice and practice-informed science as the researchers adjusted their efforts based on the needs of the practitioners. This project also culminated in lessons learned to inform future researcher–practitioner partnerships in the field of sexual violence.

Identify and Commit to a Guiding Framework or Orientation

Cousins's P-PE was selected to guide this researcher–practitioner partnership and proved very useful. When the evaluation team reached a crossroad in deciding, for example, who to involve in the evaluation and to what degree, P-PE provided guidance. Indeed, this is the purpose of evaluation theory—to provide guidance for decision making throughout the evaluation process (see Miller, 2010). When faced with an ethical or methodological dilemma, members of the researcher–practitioner partnership can rely on their pre-selected theory, orientation, or model to provide guidance on how to move forward. For example, the evaluation team in this research–practitioner partnership initially drafted two proposals for state partners—one that included survivors as a key stakeholder group and another that did not. Survivors would have been an important stakeholder group to elicit feedback from for the evaluation as they are directly affected by the kit contents and process. However, the evaluation was under a strict timeline as a date for statewide dissemination of the new SAK was already set. If the evaluation findings were not complete prior to this date, they would not be able to inform revisions prior to the new SAK's release. Recruiting and interviewing survivors as part of this evaluation would have extended the length of time needed to complete the evaluation and the findings would likely not have been completed by the SAK release deadline, negating their use. P-PE supports collaborative processes (i.e., involving survivors), but not at the expense of use (i.e., producing evaluation findings prior to the release date of the new SAK). The evaluation team used P-PE to guide their decision to not include survivors in the pilot SAK evaluation.[8]

Without having selected a guiding framework upfront, these decisions may have been much more difficult to make. It is important to select a guiding framework that is flexible and meets the needs of the particular project and stakeholders. Finally, it is important to note that the selected guiding framework *in principle, although not always in name*, is explicit to all stakeholders involved. For example, in evaluating the new SAK in Michigan, all

members of the researcher–practitioner partnership knew the high value placed on collaboration and use, although they could not name or articulate the tenants of Cousins's P-PE. Community partners do not need to be trained in the intricacies of the selected theory,[9] but need to know how it is being applied to the collaborative process.

Be Aware of Other Community Change Efforts Occupying Stakeholder's Time

In most communities, the same key players are frequently asked to be involved in an array of change efforts that monopolize varying amounts of their time and require varying degrees of their energy and attention. In many ways, community partners can be thought of as valuable limited resources, so it is important to determine whether there are other community change efforts underway that may be tapping into and depleting this valuable resource. For example, if community partners have been investing a great deal of time into another change effort to improve the community response to sexual assault, they may not be able to commit fully to your initiative. Their reluctance, hesitance, or delay in response may be because they are simply "spread too thin." For example, although this researcher–practitioner partnership was working on the pilot SAK evaluation, many of the involved stakeholders were also part of an action research project investigating and responding to a stockpile of unsubmitted SAKs located in Detroit (see Campbell, Fehler-Cabral, Shaw, Horsford, & Feeney, 2014; Hulett, 2011). Knowledge of this separate, yet related, project informed how and when the evaluation team made requests of involved stakeholders so as to not overtax participating practitioners. We hope that this project and lessons learned from these efforts can serve as a blueprint for other communities hoping to implement similar research efforts. In doing so, we can begin to understand how "research is the road, not the roadblock, to victim-centered practice and policy" (OVC, 2013, p. vi).

Authors' Note

Opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect those of the Michigan Department of Community Health, Michigan Domestic and Sexual Violence Prevention and Treatment Board, or the U.S. Department of Justice.

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Notes

1. This research was conducted prior to the first author's affiliation with the National Institute of Justice. This project was NOT supported by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. Opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of the Department of Justice.
2. The sexual assault kit (SAK) provides all *necessary* equipment to complete the medical forensic exam (MFE), but many facilities provide additional equipment (e.g., colposcopes) to aid in the process.
3. Given page restrictions, appendices, such as the evaluation proposal, lab tracking form, focus group scripts, complete visual representation of findings, and so on have been omitted from this publication. In an effort to close the science–practice gap, the authors are happy to share parts of materials with other researchers and communities to assist in their research-informed practice efforts.
4. Initial drafts of the evaluation proposal included sexual assault survivors as a key stakeholder group to be involved in the evaluation project. After much discussion, it was decided that they would not be included due to the time constraints of the project (i.e., practicality) and the priority of protecting patient/survivor privacy. At the time of this project, a state leader and partner in the project had several ongoing projects across the state to elicit survivor feedback so they acted as a proxy for survivors; however, we recognize that it is not the same as having their direct participation.
5. Indeed, during the evaluation, medical sites ranged in the number of new SAKs used to conduct MFEs from 4 to 60, evidencing the differential caseloads across settings.
6. The crime lab received a total of 31 new SAKs by the end of the evaluation.
7. The crime labs did not report any features that they "liked" or "disliked" about the new kits, only ways to improve on them.
8. It is also important to note that a state leader and partner in this project had several ongoing projects across the state to elicit survivor feedback. This helped to justify the decision to not include survivors as this partner acted as a proxy for survivors. However, we recognize that this is not the same as having their direct participation.

9. Unless, of course, this is intentionally part of the collaborative process. Some evaluation theories, for example, empowerment evaluation (Fetterman, Kaftarian, & Wandersman, 1995), expect and plan for making sure that practitioners are conversant in the theory and methods of evaluation.

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