Psychometric Evaluation of Three Adapted Measures Designed to Evaluate a Legal Advocacy Service Program

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RESEARCH

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ABSTRACT

Sexual assault is a prevalent issue with long-term effects on physical and mental health. Legal advocacy services provide support and resources to reduce challenges associated with the legal system. The purpose of this study was to evaluate a legal advocacy program's effectiveness. Phase I utilized qualitative analysis to develop the program evaluation protocol. We interviewed stakeholders (N = 9) and used the consensual qualitative research (CQR); [1-3] method to describe perceived outcomes of the legal advocacy program. Results indicated four domains and 26 core ideas, suggesting three potential measures for legal advocacy program evaluation. Phase II used psychometric evaluation of the modified measures to address the results of Phase I. We analyzed the structural validity of the Legal Advocacy Services Satisfaction Survey (LASSS), Sexual Assault Coping Self-Efficacy Measure (SACSEM), and the Modified Inventory of Socially Supportive Behaviors (MISSB). Only participants over age 18 who identified as female were included in analyses. Participants completed the three modified measures three times, approximately every three months. Our results provided psychometric support for using the measures in this context. Future directions will evaluate how the effectiveness of legal advocacy services varies across demographic factors.

Key Words: Sexual assault, legal advocacy, psychometric evaluation, program evaluation, secondary victimization, coping self-efficacy.

INTRODUCTION

Sexual assault includes rape, sexual coercion, unwanted sexual contact, non-contact unwanted sexual encounters, and being forced to penetrate someone else without consent [4] Sexual assault undermines physical and mental health [5]. Consequences include physical health problems; problems with relationships [6, 7]; difficulties with self-trust, intimacy issues, and fears of victimization [8, 9]; personal financial costs associated with loss of earnings and expenses related to insurance, medical costs, and counseling; and societal costs related to police investigations, criminal prosecution, and correctional systems [10, 11]. Unfortunately, sexual assault remains widespread; a representative sample of adults residing in the United States (US) indicated that 1 in 6 women and 1 in

33 men have experienced sexual assault [12, 13]. Because incidents of sexual violence are known to be underreported [14]; e.g., from 2006 to 2010 it was estimated that 65% of sexual assaults in the US were unreported to police), it is likely that current statistics underestimate the severity of the problem [15, 16].

Legal advocacy programs guide clients through the legal process. While it is hoped that this support will mitigate against negative consequences, few rigorous evaluations of their of programmatic outcomes exist [17, 18]. Consequently, the purpose of our paper is to share the results of a community/university partnership in which we utilized a mixed method design to develop and evaluate a protocol for systematic program evaluation of a sexual assault legal advocacy program. Our article focuses on the results of two steps: (a) a qualitative analysis to develop the evaluation protocol, and (b) the psychometric evaluation of three measures used in the on-going program evaluation. As briefly noted, numerous researchers have documented potential personal and interpersonal consequences to physical and mental health that are a direct result of sexual violence.

Secondary Victimization within the Legal System

Between 26-40% of people who experience sexual assault report the incident to the police and pursue prosecution of the perpetrator(s) through the criminal justice system [19]. However, 90% of individuals report experiencing insensitive treatment and/or secondary victimization in their first encounter with law enforcement [20]. Individuals who seek support through law enforcement risk being doubted, blamed, and denied support [21, 22], resulting in lack of trust in this system. Survivor-blaming attitudes; insensitive comments; and questions regarding the clothing they were wearing at time of the assault, information about their prior sexual histories, and whether they became sexually aroused at any point during the assault [19] result in re-traumatization [22] and have little legal relevance [23].

The ways in which systems and service providers respond to the needs of individuals following sexual assault can have significant implications for recovery and well-being, as well as willingness to pursue further support [19, 22]. Secondary victimization has been associated with several negative outcomes, including physical health symptoms, sexual health risk-taking behaviors, and increased psychological distress [24]. Studies [25, 26] have revealed that contact with the legal system has resulted in individuals feeling (a) badly about themselves (87%), (b) depressed (71%), (c) violated (89%), (d) distrustful of others (53%), and (e) reluctant to seek further help (80%). Several focus group participants stated they would not have reported the assault if they had known in advance what their experiences with the legal system would be like [27].

Highlighting the Importance of Legal Advocacy

Legal advocacy is "the act of pleading for or arguing in favor of something or actively supporting a cause of proposal" [28] and involves guiding and supporting an individual throughout the legal process. Within the context of sexual assault, the focus of legal advocacy services is to improve the post-assault experience by decreasing or ending secondary victimization, guiding individuals through the numerous service systems available to them, and working alongside providers to guide service delivery [24, 29]. Support may include provision of resources for individuals to find shelter and mental health counselling [30, 31] and development of new policies to help prevent sexual assault. Legal advocates can further help individuals navigate the criminal justice system by securing protective orders, accompanying individuals to all interviews, giving information about the typical criminal justice process, helping with trail preparation, and providing support for victims throughout the entire legal process [30]. The aim of these services is to mitigate the barriers that can discourage individuals who experienced sexual assault from reporting the sexual assault to law enforcement [30]. Preliminary studies examining the efficacy of legal advocacy suggest that individuals experience more positive interactions with law enforcement personnel, see a larger percentage of assault reports accepted by police, and experience less distress and re-traumatization/re-victimization by members

of the medical and legal system [22, 24, 32].The research has not been able to determine what aspects of the relationship are the most helpful or how to better legal advocacy programs, since the research is in its infancy [22, 24, 32]. Future research should aim to determine how to better these legal advocacy programs to best help clients and determine what is the most helpful to better outcomes.

Current Article

Although supports and services are available to assist individuals following sexual assault, research evaluating their effectiveness, whether based on objective outcomes or subjective perceptions on the part of those seeking services, is scarce [31, 33, 34]. This scarcity is due, in part, to the challenges inherent in this type of research, such as maintaining confidentiality of the clients who agree to take part [23] and determining the relevant outcome data that should be collected [31, 35, 36, 37]. In addition, little research has examined individuals' perceptions of the usefulness of the resources and services they have received, and the ways in which this assistance may be associated with their mental health functioning [34]. Despite challenges, program evaluation serves a valuable purpose by providing agencies with (a) the opportunity to determine how well interventions are being implemented, and (b) the ability to formulate ideas and methods to improve service delivery in the form of lessons learned because of the process. Agencies that provide support and advocacy services to individuals who have experienced domestic and/or sexual violence exist across the United States [5].

Our research focused on a decade-old partnership with a non-profit sexual assault resource center in Washington state which focuses on the needs of individuals who have experienced sexual violence. This agency provides therapy services, education and community training, and legal advocacy services to provide support for individuals and their families through the duration of the criminal justice process [30]. As part of the agency's mission, legal advocates provide "survivors with tools that support their own strengths, encourage them to make their own decisions, and empower them to regain control of their lives

through their individual healing process" [30]. Legal advocates "are the only participants in the legal system whose sole focus is on the victim," thus making their role within the legal process unique in comparison to other forms of legal support [30]. Through partnering with this agency, we sought to develop a valid and reliable protocol for evaluating the effectiveness of its legal advocacy services to better understand how to best help the agency's clients. Therefore, we first utilized qualitative methods to determine expected outcomes of legal advocacy services, then completed a psychometric evaluation of a suite of surveys adapted and adopted according to the results of the qualitative study.

Phase I: Qualitative Assessment of Desired Program Outcomes
Materials and Methods

We utilized the consensual qualitative research method [1-3] to evaluate the agency's stakeholders' perceptions of the legal advocate's role, impressions about client changes experienced through participation in the legal advocacy program, experiences and interactions with the program, and ideas about programmatic goals. We anticipated that initial results would be used (a) to provide a comprehensive preliminary evaluation of the existing program, including services provided and the program's functioning in the legal system, and (b) to guide the selection, revision, or creation of measures for on-going program evaluation.

CQR is a grounded-theory approach in which researchers derive core domains and ideas from participant responses to open-ended questions. This process involves dividing responses into domains, creating brief summaries called core ideas for each domain, and cross-analysing to determine consistencies across domains and core ideas.

Participants

Participants (*N* = 9; 3 males and 6 females) were stakeholders: two of the agency's legal advocates, two defense attorneys, two prosecuting attorneys, one detective, and one agency's board member. Potential

participants were identified by the agency or recommended by earlier participants based on their professional involvement in sexual assault and the legal process that follows.

Researchers

Researchers were two doctoral students and an Associate Professor all associated with a Ph.D. program in Clinical Psychology. All individuals of the research team participated in development of semi-structured interview questions and doctoral students conducted all interviews. A third doctoral student, trained in the CQR method and interested in the topic, conducted an audit of identified core domains and ideas.

Interview Questions

Two sets of interview questions were developed and utilized for this phase: one set for non-client stakeholders and one for the agency's clients. After reviewing the literature surrounding legal advocacy programs as well as information about collaborative approaches to program evaluation, we worked closely with the agency to develop the interview protocol. Drafts of the protocol were exchanged and updated and were reviewed by multiple stakeholders (e.g., agency executives, legal advocates, a long-term client). Interviews were scripted but conducted flexibly to allow for rich descriptions of participants' impressions. Questions focused on the stakeholder's experiences and interactions with the legal advocacy program, perception of the legal advocate's role, ideas about programmatic goals, and the impressions about changes they experienced from participation in the legal advocacy program. Participants were also asked about perceived strengths and weaknesses of the program.

Procedures

The interviews (ranging from 60 to 90 minutes) were conducted verbally in-person with stakeholders. All interviews were conducted between May and October of 2008. All interviews were audio recorded and transcribed verbatim for data analysis. There were no incentives for participation.

Data Analysis

The team members followed the recommendations of Hill et al. [26-28] to analyse the interview data. First, data were unitized through a process of chunking data into complete thoughts. Second, units were assigned to domains. Team members independently developed a start list of domains based on participants' transcripts and came together to argue to consensus the domain names. Team members then read through individual interview transcripts and assigned each unit of data to a domain. Disagreements or inconsistencies that emerged were resolved through arguing to consensus and making revisions as appropriate. After teams had a stable list of domains, they summarized the content of each domain into core ideas. Core ideas were first developed independently before the team came together to reach consensus on a final version. A preliminary CQR frequency table was established. Finally, stakeholders reviewed preliminary findings before domains and core ideas were finalized.

The trustworthiness of the project was supported in two ways. First, preliminary findings were presented to the agency, whose members provided feedback on potential inaccuracies, implications of findings, and future research possibilities; no significant inaccuracies were identified. Second, a doctoral student not otherwise associated with the project conducted an audit of the domains, core ideas, and frequency table.

Qualitative Results

Results included 26 core ideas sorted into four domains: (a) advocate role, (b) outcomes, (c) justice system/community, and (d) workload/resources. The domains and core ideas (see Table 1) pointed toward potential measures that could be used in the program's evaluation. Specifically, the "Advocate Role" and "Outcomes" domains indicated that self-efficacy for coping with sexual assault is an important outcome. Additionally, receiving support from the legal advocate was important for

participants. This is consistent with prior research demonstrating that perceived support is associated with important outcomes following sexual assault [38, 32, 39]; including decreased incidence of re-abuse). The most frequent core ideas were those identifying tasks associated with "Advocate Role" (e.g., communicating the legal process, connecting victims with community resources, provide information about sexual assault).

Together with the agency professionals, it was determined that future comprehensive program evaluation would include: (a) assessment of self-efficacy for coping with sexual assault, (b) an assessment of social/emotional support provided by the legal advocate, and (c) an assessment of satisfaction with services provided by the legal advocate. Members of the research team and agency searched the existing literature and adopted, adapted, or constructed new scales for each of these constructs. Descriptions are provided in the next section.

Phase II: Psychometric Evaluation of the Measures
Materials and Methods
Participants

Participants were clients who received legal advocacy services offered by the agency between 2013 and 2016. Data collection took place intermittently as grant funding was available to provide incentives for survey participation. Only participants over the age of 18 years old and who identified as cis female were included in the data analyses. Those who were under the age of 18, males, and those who identified as transgender were not included in the analyses in this phase based on the disproportionately low sample sizes that precluded accurate statistical comparisons. To maximize participation, participants were offered the survey three times: at intake and at two intervals approximately 3- and 6-months after the first. Clients ranged in age from 18 to 75 years old, with almost 40% of the clients between the ages of 18 and 24 (M = 34.11, SD = 13.776). Estimating from the 46 participants that provided ethnic, racial, and socioeconomic information, a majority identified as Caucasian (71.7%) followed by African American (2.2%). About 41.3% of the 46 participants

identified as being in the low- to very low-income bracket. Most participants had some high school education (67.4%).

Sampling Procedures

Participants were invited to take the survey three times. The first was at intake and then at approximately three- and six-months after beginning the process. At each invitation, participants were presented three measures regarding satisfaction with their legal advocate, social support from their legal advocate, and coping self-efficacy. Clients could choose whether they wanted to provide their demographic information. Incentives were offered (i.e., $10 online gift card to Target or Starbucks) by the agency for participation; participants could receive a maximum of $30 for completing the entire survey at all three time-points. Survey completion was possible either via paper and pencil at the agency office or online via Surveymonkey. Online surveys were de-identified by the agency and sent to the researchers for analysis.

Sample Size, Power, and Precision

We utilized Westland's [40] approach to structural equation modelling power analysis and used the Structural Equation Model Sample Size Calculator [41]. We provided the estimated effect size at 0.3, desired statistical power level at 0.8, probability level at .05, and the number of latent variables and observed variables (i.e., items) for each measure. Results indicated an adequate sample size of 90 participants was required; our sample of 91 participants appeared to be sufficient.

Measures

Legal Advocacy Services Satisfaction: The Legal Advocacy Services Satisfaction Survey (LASSS) is an author-constructed, self-report, 9-item measure that assesses two factors: client satisfaction with the information provided by the advocate (4 items) and the quality of the relationship between advocate and client (5 items). The items use a 5-point Likert scale, ranging from 1 (not at *all*) to 5 (*to a very great extent*). An increase or decrease in scores over time is interpreted as change in the quality of one or both elements

of client satisfaction as opposed to instability of the measure. High scores suggest that the client feels satisfied with the services being provided and that the advocate is doing their job well, while low scores suggest the opposite. Sample items included: "Did the advocate explain the legal process effectively?" (Quality of information) and "Did your advocate maintain contact with you that met your needs?" (Quality of relationship).

Sexual Assault Coping Self-Efficacy: The Sexual Assault Coping Self-Efficacy Measure (SACSEM) was adapted from the Domestic Violence Coping Self-Efficacy Measure (42; DV-CSE). The DV-CSE is a 30-item measure that assesses a person's coping self-efficacy regarding their domestic violence recovery. The responses are captured on a 100-point Likert scale, ranging from 0 (*not at all capable*) to 100 (*totally capable*). The total score is calculated by summing the ratings. Initially, internal consistency coefficient was .97. Benight and colleagues [4] conducted a factor analysis, which suggested a single factor. The resulting internal consistency coefficient was .97.

Nineteen of the DV-CSE's 30 original items were chosen based on the themes that arose during the CQR or information provided by the agency, and 12 of the 19 items were modified by (a) replacing "domestic violence" with "sexual assault," (b) replacing "abuser" or "abuse" with "assailant" or "assault," and (c) deleting the phrase "since the most recent attack" and replacing it with "since the latest assault." In response to the stem, "Please use the following scale to indicate your capability (ability or confidence) to manage the following issues since the sexual assault. Circle the number that best represents your capability," a sample item is: "Dealing with feelings of shame concerning the assault." The rating scale was modified to a 5-point Likert scale, ranging from 1 (completely incapable) to 5 (completely capable), total scores are obtained by averaging item scores. Higher scores on the SACSEM indicate increased levels of confidence to cope with future stressors. Thus, the resultant SACSEM is an author-modified, self-report measure that assesses a person's confidence to cope after their sexual assault.

Legal Advocacy Social Support: The Modified Inventory of Socially Supported Behaviors (MISSB) was created to evaluate social support specifically provided by legal advocates. The MISSB was adapted from the Inventory of Socially Supported Behaviors [43]; (ISSB), a 40-item self-report assessment of types and frequency of social support an individual received within the past month. The items are rated on a 5-point Likert scale, ranging from 1 (not at all) to 5 (about every day). A total score was calculated by summing the rating across all 40 items. Finch and colleagues [22] conducted a confirmatory factor analysis, which suggested four theoretically meaningful factors: directive guidance, tangible assistance, positive social exchange, and non-directive support. Internal consistency coefficients ranged between .36 to .89 and one-month test re-test reliability was .88 [2].

To assess the social support provided by the legal advocates, we modified 15 of the ISSB's original items to (a) identify the legal advocate as the source of social support and (b) reflect the types of support that would typically come from a legal advocate. In response to the stem, "Rate the frequency of events using the following response categories. Choose the category that best represents how often your advocate responded to you in this way," a sample item was: "Let you know that KCSARC services were always available." The 5-point Likert sale was maintained. The resulting MISSB is an author-modified self-report measure that assesses the frequency of socially supportive behaviors that "best represent how often your advocate responded to you in this way." Higher scores on the MISSB indicate increased levels of perceived legal advocacy social support.

RESULTS

Addressing Missing Data

Assessment of missing data suggested that the missing values formed a general or haphazard pattern as described by Enders [44]. The few missing values were managed using single imputation for the confirmatory factor analyses.

Data Analytic Plan

We analysed structural validity and calculated internal consistency using SPSS Statistics and SPSS Amos. We chose a model-generating approach [45] to separately evaluate the 9-items from the LASSS, the 19-items from the SACSEM, and 15-items from the MISSB. We used modification indices (MIs) to re-specify the model and compared the fit of the subsequent models. We evaluated the model fit based on fit indices, including the chi-square likelihood ratio statistic, the comparative fit index (46; CFI), and the root mean square error of approximation9 (RMSEA). The chi-square likelihood ratio statistic measures the closeness of fit between the sample covariance matrix and the fitted covariance matrix; however, large sample size can result in an artificially statistically significant p value [47]. The CFI has become the recommended index for evaluating model fit; a range of acceptable fit begins at .90 with an upper bound of .95 [46-48]. The RMSEA has been recently recognized as one of the most informative criteria of model fit [47]. Values between .05 and .06 indicate good fit; values between .08-.10 indicate mediocre fit. Consequently, RMSEA scores close to 0.00 are more desirable. When the initial model indicated poor fit, we evaluated MIs [47] to locate parameters that might be freed to covary. Although allowing errors to covary can lead to artificially inflated fit indices [47], we allowed these errors to covary if we suspected that a similarity separate from the proposed theoretical relationship accounted for a systematic relationship between these two variables.

Psychometric Properties for LASSS

We conducted a confirmatory factor analysis for the hypothesized 9-item version of the two-factor structure of the LASSS. The relationship factor contained 5 items and the information factor contained 4 items. The results of the initial confirmatory factor analyses and modifications are presented in Table 2. Our initial model suggested less than adequate fit; therefore, we evaluated MIs to improve the model fit. Across two subsequent steps, we allowed error covariances between two items that addressed hopes and wants during the legal process and items inquiring about

feeling heard and in control. All the regression weights were statistically significant and had reasonable magnitude and appropriate sign. Chi-square change tests indicate statistically significant improvements at both steps. Although the fit statistics (CFI = .93, RMSEA = .16) remained below the desired standards, we did not believe we could justify freeing additional parameters.

Internal consistency coefficients for the suggested 9-item version of the LASSS were .95 (test) and .96 (retest) for the total LASSS scale, .90 and .91 (retest) for the 4-item information subscale and .92 (test) and .92 (retest) for the 5-item relationship subscale, suggesting excellent internal consistency. The temporal stability of the LASSS was evaluated by comparing data from 35 participants who completed the measure for a second time approximately three months after the first administration. The Pearson's correlation coefficient was .80 for the 6-item total scale, .72 for the 4-item information subscale, and .80 for the 5-item relationship subscale, suggesting a robust relationship between scores across time and demonstrating adequate test-retest reliability. Across both sets of evaluations, the measure displayed strong internal consistency and temporal stability.

Psychometric Properties for SACSEM

We conducted a confirmatory factor analysis and subsequent modifications for the suggested 19-item version of the SACSEM are presented in Table 2. Because our initial model indicated less than adequate fit, we evaluated MIs to improve the model fit. Across four separate steps, we allowed a covariance between items regarding handling negative emotions that arise when someone is disappointed in themselves, items about managing or regulating negative emotions, items about handling emotional responses to something that challenges someone's perceived identity/standards, and items about handling helplessness and being prepared. All the regression weights were statistically significant, had reasonable magnitude, and had appropriate sign. Chi-square change tests indicate statistically significant improvements at each step. Although the fit statistics (CFI = .92, RMSEA = .10) remained below the

desired standards, we did not believe we could justify freeing additional parameters. Thus, we recommend the one- factor structural model of the SACSEM. Figure 3 depicts the final one-factor model for the SACSEM.

Internal consistency coefficients for the 19-item SACSEM were .96 (test) and .97 (retest). Temporal stability was calculated by comparing data from 34 participants who completed the measure for a second time approximately three months after the first administration. The Pearson's correlation coefficient for the 19-item SACSEM was .86, suggesting a robust relationship between scores across time and demonstrating strong test-retest reliability.

Psychometric Properties for MISSB

Confirmatory factor analyses and modifications for the MISSB are presented in Table 2. Again, our initial model indicated less than adequate fit, so we evaluated MIs to improve the model fit. Across three steps, we allowed error covariances between items about providing information, items addressing physical or verbal validation, and items about proactive communication. All the regression weights were statistically significant, with reasonable magnitude, and appropriate sign. Chi-square change tests indicate statistically significant improvements at each step. Although the fit statistics (CFI = .96, RMSEA = .10) remained slightly below the desired standards, we did not believe we could justify freeing additional parameters. Thus, we recommended the one- factors structural model of the MISSB. Figure 4 depicts the final one-factor model for the MISSB.

Internal consistency coefficients for the 15-item MISSB were .97 (test) and .97 (retest). Temporal stability was calculated by comparing data from 28 participants who completed the measure for a second time approximately three months after the first administration. The Pearson's correlation coefficient for the 15-item MISSB was .57, which suggested a weak relationship between scores across time and demonstrated poor test-retest reliability. However, this test-retest reliability should be interpreted within the context in which our data were collected; we may anticipate that participants' perceived degree of social support from

their legal advocate is dynamic rather than static, changing over time in response to events related to their case or to continued support from their legal advocate as they navigate the legal process.

Interrelationships of the Measures

The construct validity of a measure can be supported by examining its relationship with other measures. Thus, Pearson's correlation coefficients were calculated using the 9-item total scale, 4-item information subscale, and 5-item relationship subscale scores of the LASSS with the total scale scores of the 15-item MISSB and 19-item SACSEM. Results can be found in Table 3. The two subscale scores of the LASSS are strongly correlated with each other (r = .84); this is consistent with the idea that providing information may be perceived by participants as a way of offering support within the legal advocate-client relationship. The correlations between the LASSS total, relationship, and information scores and the SACSEM were 39, .36, and .39, respectively. The correlations between the LASSS total, relationship, and information scores and the MISSB were .47, .46, and .44, respectively. The correlation between SACSEM and MISSB was .09, which suggests a non-significant relationship between these measures. Thus, the pattern of relations supports convergence among subscales of the same scale and discrimination with other measures.

DISCUSSION

In this article, we reported on the development of measures for use in the program evaluation of an agency providing legal advocacy services following sexual assault. After discussions with stakeholders, we identified four key areas for evaluation: the legal advocate's role, outcomes, justice system/community, and workload/resources. The LASSS, SACSEM, and MISSB were developed in response, and we then assessed the psychometrics of each measure. The two subscales of the LASSS (relationship and information) are strongly related, the LASSS and SACSEM are also related (supporting the instruments' convergent validity) but not redundant, and the SACSEM and MISSB are

unrelated (supporting the instruments' discriminant validity).

Implications for Practice

The psychometric evaluation of measures in this study supports their use in applied settings. The measures can be completed by clients in 15-20 minutes and are easy for advocates to score and interpret. The strong reliability and temporal stability of the LASSS within our sample suggests that its use may be of interest to those working in legal advocacy to assess the quality of services being provided. Poor provision of information, for example, can lead to feelings of disconnection for women who have experienced sexual violence [49]; thus, evaluation of the amount of information and how it is being delivered may provide insight into how to modify information delivery to reduce feelings of disconnection.

The LASSS and MISSB could both be utilized in the assessment of the client-advocate relationship. Empathetic and supportive relationships are vital to individuals who have experienced sexual assault, and advocate relationships of this type are associated with other positive outcomes such as further legal action against perpetrators [49]. The LASSS and MISSB provide the client with a safe outlet to express their experiences with the advocacy process while also providing feedback about the client's needs. Both processes can foster a positive, and collaborative client-advocate relationship.

The LASSS and MISSB may also be useful to supervisors and administrative workers as tools for providing feedback and training goals to legal advocates. Results can support on-going program development, evaluation, and training of new advocates, while also providing evidence of the program's effectiveness by using psychometrically supported measures. The LASSS, MISSB, and SACSEM may also add to the research literature on sexual assault legal advocacy and outcomes. For example, future research may assess the relationship between scores and specific desired outcomes of interest (e.g., reduction of secondary victimization, successful legal action taken against perpetrators). These measures may also serve as bases for the development of future sexual assault advocacy assessments, such as those assessing advocate perceptions of quality of care that could help identify any disparities in perceived quality between client and advocate.

Limitations

In Phase I of our study, the similar demographic characteristics of the research team (all were Caucasian women from a clinical psychology program) may have served to bias the research design, implementation, and interpretation of data [2].

Although our results provide evidence for the validity and reliability of the LASSS, SACSEM, and MISSB, these findings should be interpreted alongside our study's limitations. First, our sample was comprised entirely of individuals who identified as cis female and were over 18 years old, were predominantly Caucasian (69%), younger (83% were between 18 and 40) and had completed 12 years (or less) of education (56%). Thus, our generalizability is limited when considering women who are minorities, over the age of 40, transgender, or have higher education. Because neither sexual orientation nor gender identity was included in analyses, we cannot speak to the utility of our measures within LGBTQ populations.

Self-selection may have biased our results—for example, more satisfied clients may have been motivated or more comfortable completing the surveys, or some clients may have chosen not to respond due to the risk of retriggering painful and/or traumatic memories [50].

We also note that we did not evaluate content or predictive validity of the measures and emphasize that content or wording of some items may need to be modified for use with different populations. It is also not known how the quality of the information and of the client-advocate relationship impacts certain outcomes including self-esteem, mental health, or quality of life.

One limitation in our statistical analyses was our decision to free error variances to covary when testing for the measures' structural validity. The decision of freeing these error variances to covary has some potential problems like using a post hoc analysis for data-driven

hypotheses; omitting confounding, yet relevant variables; inflating bias parameter estimates of the model; and hiding insignificant results due to sampling errors [51].

Lastly, we acknowledge uncontrolled variables that may impact client satisfaction, such as the age, gender, sexual orientation, ethnicity, demographic variables, and experience of the advocate, and assault type, identity of the perpetrator, and trauma history of the client.

Future Research

Program evaluation is an on-going process that will continue as we refine measures to best capture relevant outcomes and serve programmatic needs. One significant focus for future research is broadening our scope to evaluate other populations not currently included in our data such as Black and Hispanic/Latino individuals, those of lower socioeconomic status, men, and members of the LGBTQ+ community It is important to continue evaluating how well our measures operate across these demographic variables, and how advocacy services may vary. As such, we plan to offer the survey in both Spanish and English, and to begin collecting data from adolescent clients ages 13 and older.

We are also adding measures to evaluate secondary victimization, coping strategies, and resilience appraisals in clients, constructs which may be particularly relevant in evaluating mental health outcomes following sexual assault. More research is needed regarding how research findings impact programmatic changes and effectiveness at the client-level. While these services hold the potential for improving outcomes for people who experience sexual assault, little research currently exists evaluating how effectively these programs address the needs of this population. Our program evaluation provides valuable information regarding the nature of these needs and how current services address them.

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PEER REVIEW

Not commissioned. Externally peer reviewed.

TABLES

Table 1

Phase I CQR Frequency Table

Domain	Core Idea	Freq.	Resp.	Units
Advocate Roles				
	Communicate the legal process with victim.	General	8	22
	Represent the victim's interests in the legal process.	General	8	14
	Provide victims with general information about sexual assault.	General	7	20
	Be a resource for family members of victims.	Typical	5	14
	Monitor the legal process.	Typical	5	5
	Connect victims with community resources.	Variant	4	5
	Empower victims.	Variant	3	8
	Maintain frequent contact and be readily available.	Variant	3	6
	Manage victim expectations.	Variant	3	4
	Build a relationship with victims.	Rare	2	3
	Advocates should not push victims toward any outcomes.	Rare	2	2
Outcomes				
	It may be difficult to find objective outcomes of success of a legal advocacy program.	Variant	4	5
	Success is defined by victim feeling heard and that the process was worthwhile.	Variant	3	4
	It is important to document process and outcomes of individual clients.	Rare	2	6
	Success is defined by victim feeling empowered to advocate for themselves.	Rare	1	3
Justice System/ Community				
	Improvement needed in communication among professionals.	Typical	5	17
	More education for the system on what legal advocate does and the services KCSARC provides is necessary.	Typical	5	11
	Community needs more sexual assault education and awareness of KCSARC.	Typical	5	10
	Victims should have more say in the legal process.	Typical	4	6
	Advocates should continue to maintain independence from the government system.	Rare	2	2
	System needs more cultural awareness and education.	Rare	1	4
Workload/Resources				
	There are too many cases, not enough legal advocates	Variant	3	4
	Advocates need additional training	Rare	2	3
	KCARC website is important resource to the public.	Rare	1	3
	Need male advocates for male victims.	Rare	1	1

Note. N = 9. General = applicable to at least 75% (n ≥ 7) of the participants; Typical = applicable to at 50% (n = 5 or 6) of the participants; Variant = applicable to at least 25% (n = 3 or 4); Rare = applicable to < 25% (n ≤ 2) of the participants.

Table 2

Confirmatory Factor Analyses for LASSS, SACSEM, and MISSB

LASSS 2-Factor Model	X^2	df	Model comparison	ΔX^2	Δdf	CFI	RMSEA
M1 – 2-factor	184.603	26				.88	.20
M2 – e8< - >e9	149.690	25	1 vs. 2	34.913*	1	.91	.18
M3 – e7< - >e8	122.650	24	2 vs. 3	27.04*	1	.93	.16
SACSEM 1-Factor Model	X^2	df	Model comparison	ΔX^2	Δdf	CFI	RMSEA
M1 – 1-factor	462.558	152				.88	.11
M2 – e18< - >e19	430.408	151	1 vs. 2	32.150*	1	.89	.11
M3 – e05< - >e10	405.412	150	2 vs. 3	24.996*	1	.90	.10
M4 – e10< - >e18	382.736	149	3 vs. 4	22.676*	1	.91	.10
M5 – e02< - >e03	368.804	148	4 vs. 5	13.932*	1	.92	.10
MISSB 1-Factor Model	X^2	df	Model comparison	ΔX^2	Δdf	CFI	RMSEA
M1 – 1 factor	353.578	90			1	.92	.14
M2 – e7< - >e8	296.341	89	1 vs. 2	57.237*	1	.93	.12
M3 – e1< - >e2	251.626	88	2 vs. 3	44.715*	1	.95	.11
M4 – e5< - >e4	214.379	87	3 vs. 4	37.247*	1	.96	.10

Note. Initial model and Re-specifications for the Legal Advocacy Services Satisfaction Survey (LASSS), Sexual Assault Coping Self-Efficacy Measure (SACSEM), and Modified Inventory of Socially Supported Behaviors (MISSB). M1 is the code for the initial model. M2 is code for the second re-specified model. M3 is code for the third re-specified model. M4 is code for the fourth re-specified model. M5 is code for the fifth re-specified model. 'X^2' is code for chi-square values; 'df' is an acronym for degrees of freedom. 'Δ' is the capital Greek letter, Delta, which represents change. 'CFI' is the acronym for Comparative Fit Index. 'RMSEA' is the acronym for Root Mean Square Error of Approximation. '<->' is code for allowing the errors to co-vary in the model.

*denotes $p < .05$

Table 3

Bivariate Correlation Matrix Between LASSS Total, LASSS Relationship, LASSS Information, SACSEM, and MISSB and their Internal Consistency Alpha Coefficients

	LASSS Total	LASSS Relationship	LASSS Information	SACSEM	MISSB
LASSS Total	.95-.96	--	--	--	--
LASSS Relationship	N/A	.90-.91	--	--	--
LASSS Information	N/A	.84**	.82-.92	--	--
SACSEM	.39**	.36**	.39**	.96-.97	
MISSB	.47**	.46**	.44**	.09	.97-.97

Note. Bivariate correlations between the 9-items used to calculate the Legal Advocacy Services Satisfaction Survey (LASSS) total score, the 5-item used to calculate the Relationship LASSS score, the 4-items used to calculate the Information LASSS score, the 18-items used to calculate the Sexual Assault Coping Self-Efficacy Measure (SACSEM) score, and the 15-items used to calculate the Modified Inventory of Socially Supported Behaviors (MISSB) score. On the diagonal are the internal consistency alpha coefficients at test-retest.
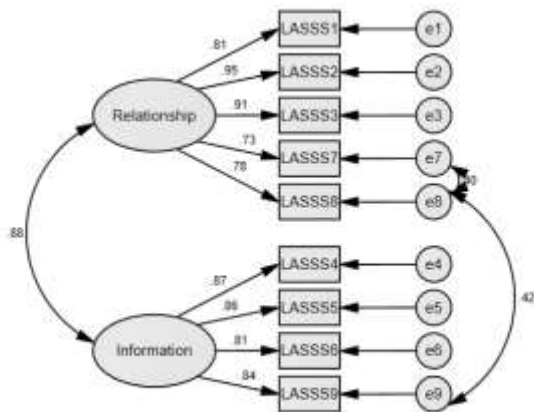
**denotes $p < .01$

FIGURES

Figure 1. Final 9-item two-factor model of Legal Advocacy Services Satisfaction Survey (LASSS) with standardized regression estimates.
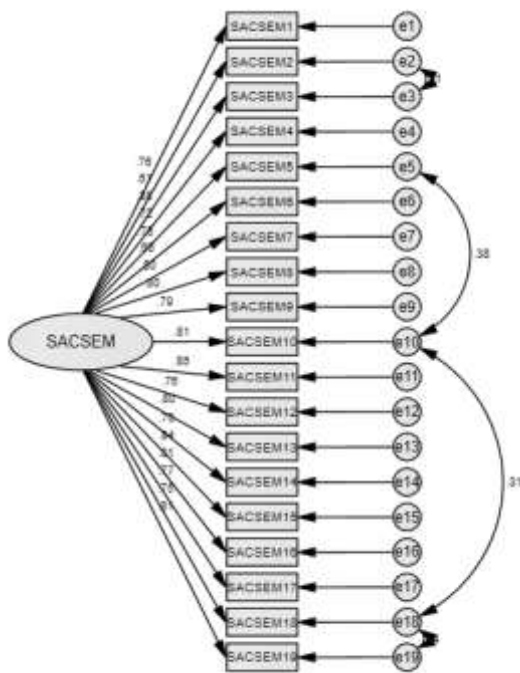
Figure 2. Final 19-item one-factor model of Sexual Assault Coping Self-Efficacy Measure (SACSEM) with standardized regression estimates.
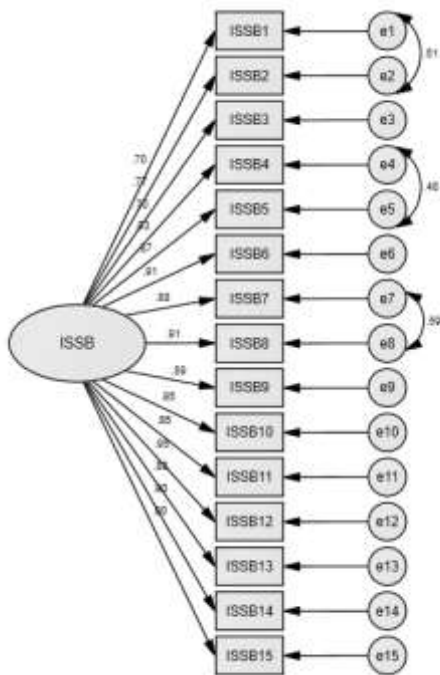

Figure 3. Final 15-item one-factor model of Modified Inventory of Socially Supported Behaviors (MISSB) with standardized regression estimates.