

Research Article

Assessing Social Networks: Validation of the Informal Supporter Readiness Inventory (ISRI) for Use in an Australian Context

Ryan L. Davies , Kylie Rice , and Adam J. Rock 

School of Psychology, University of New England, Armidale, Australia

Correspondence should be addressed to Ryan L. Davies; rdavie33@myune.edu.au

Received 4 December 2023; Revised 12 July 2024; Accepted 27 August 2024

Academic Editor: Kumari Shweta Kalyani

Copyright © 2024 Ryan L. Davies et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Objective. This research aimed to validate the Informal Supporter Readiness Inventory (ISRI) for evaluating the preparedness of informal supporters, in an Australian sample, to provide assistance in the context of intimate partner violence (IPV). **Method.** The ISRI's four distinct factors were each assessed with separate confirmatory factor analyses (CFA). Reliability was calculated using Cronbach's alpha values, and test-retest reliability was evaluated using intraclass correlation coefficients. Additionally, the ISRI's validity was assessed through Pearson's correlations with both convergent and divergent measures. **Results.** The CFAs supported the four distinct factors of the ISRI: normative, individual, situational-emotion, and situational-assessment. The measure exhibited good-to-excellent internal consistency across these factors and good test-retest reliability at four weeks. Convergent validity was supported by a strong positive correlation with the Intent to Help Friends Scale, while its weak association with the Generic Job Satisfaction Scale supported divergent validity. **Discussion.** The ISRI has emerged as a practical instrument with relevance to certain Australian sociocultural dynamics, offering utility in both research and clinical settings. The ISRI supports a network-oriented approach to IPV survivor support, assisting the alliance between formal and informal support mechanisms. Future research should focus on broadening the ISRI's applicability by assessing its effectiveness across diverse Australian populations.

1. Introduction

Intimate partner violence (IPV) is a pressing and pervasive issue of global concern [1]. Regardless of socioeconomic, cultural, or geographical boundaries, IPV affects numerous individuals, posing a universal challenge [2]. IPV involves any harm, whether physical, sexual, emotional, or psychological, that is often underpinned by the use of coercive control, inflicted by one partner upon another within a current or former intimate relationship [3]. The repercussions of IPV reach beyond the immediate trauma and manifest in physical, psychological, and emotional issues for survivors, often leaving long-lasting implications that significantly deteriorate their overall quality of life [4]. In Australia, nearly one in four women (23%) have experienced violence from a current or former partner since the age of 15 years [5]. Beyond the physical, emotional, and

psychological toll, the economic consequences are also profound, with the annual costs of IPV in Australia estimated to be \$13.6 billion [6]. The implications of IPV, evident both in human impact and the economic costs, highlight the importance of developing effective prevention and intervention strategies.

Support systems play an important role in the safety and recovery process of IPV survivors [7]. These support systems encompass both professional services and social network relationships and can offer essential resources and tools for survivors' well-being. Within these networks, informal supporters such as friends, family, and neighbours serve a vital function. Often the first responders for survivors, these supporters may offer initial crisis assistance and ongoing emotional and practical support and can guide survivors towards more structured, professional support systems [8].

1.1. Social Network-Oriented Approaches. Unlike formalised systems, which adhere to structured protocols, informal supporters present a distinct type of assistance. These individuals extend emotional, informational, and instrumental support without specialised training [9]. Due to their familiarity with the survivor's background and established trust, they can provide immediate comfort and aid in understanding emotions during challenging times. Recent intervention strategies have incorporated a "network-oriented approach." This model advocates for the integration of both formal and informal support systems, leveraging the distinct advantages of each [10] in review [8]. The objective is to provide survivors with a multifaceted and integrated support network that addresses diverse emotional, informational, and instrumental needs [7]. By promoting collaboration between these systems, the likelihood of achieving a comprehensive recovery for the survivor is enhanced.

1.2. The Model of Informal Supporter Readiness. In response to the call for a network-oriented approach to survivor support [11, 12], the model of informal supporter readiness [7] was developed through a systematic review of 31 empirical studies. This model provides a comprehensive understanding of the readiness dimensions that guide informal supporters in their intervention decisions. Categorised into three distinct factors of normative (which considers the nature of help-giving social norms within the individual's social network), individual (which considers the person's beliefs about IPV and help-giving), and situational (which considers the unique interplay of relationships between the informal supporter, the survivor, and the perpetrator) domains, the MISR captures the complex interplay between supporters, survivors, and perpetrators in influencing help-giving behaviours. By offering a structured method to evaluate the competencies of informal supporters, the MISR aims to foster a bridge between personal advocacy and professional services, thereby ensuring a cohesive support system for individuals experiencing IPV.

1.3. The Informal Supporter Readiness Inventory. To address limitations in current measures of informal supporters' readiness [10], the MISR was used as a foundation in the development of the Informal Supporter Readiness Inventory [13]. Existing measures, such as the Willingness to Intervene in Cases of Intimate Partner Violence Against Women (WI-IPVAW) Scale [14] and similar tools, primarily assess the intention to assist survivors in generic situations. However, these measures are limited as they do not capture the comprehensive state of readiness required for effective support. They often overlook necessary components such as the individual's understanding of IPV dynamics, their preparedness and efficacy to act, and their capability to provide support within the specific social and relational context of the current IPV. Specifically, current measures do not consider context-specific factors such as the relationship between the informal supporter and the perpetrator, which can substantially influence the informal supporter's ability

and approach to providing support. The aim of the ISRI was to quantify the readiness of social network members in responding to IPV survivors. Specifically, the ISRI was developed to differentiate between an intent to assist, compared to a more comprehensive state of readiness to provide effective support. The distinction between "readiness" and "willingness" is noteworthy. While "willingness" refers to an initial intention to assist, "readiness" encompasses a broader range of factors, including understanding, preparedness, and capability to do so, within the context of the individual's social norms and the specific context of the current IPV, including the relational dynamics between the supporter, the survivor, and the perpetrator [10]. The ISRI was structured with this distinction as its foundation, aiming to offer a more precise assessment criterion tailored to the specific needs and roles of informal supporters.

An initial validation of the ISRI was undertaken with a sample drawn from American participants [13]. Results of this initial validation identified that the ISRI exhibited good-to-excellent internal consistency, and its factors aligned well with the constructs of the pre-established MISR [10]. Additionally, the inventory was found to be effective in predicting supportive behaviours, positioning it as a relevant tool for subsequent research and intervention methodologies.

1.4. Validation of the ISRI for Relevance in Australia

1.4.1. Importance of Localised Validation of Psychometric Inventories. Psychometric inventories need to be assessed for cultural sensitivity and appropriateness [15]. Universally applied instruments, without due consideration of cultural and societal nuances, are at risk of oversimplification and potential misinterpretation. This is particularly pertinent for IPV which, while globally prevalent, is understood, experienced, and addressed differently across cultures [16]. A tool's validity could be compromised if it overlooks regional or cultural variations in perception, attitude, and behaviour concerning IPV. For instance, the ways in which trust is established, the perceived role of informal supporters, and the societal norms around intimate relationships can vary widely [17]. Ignoring these subtleties might not only render an instrument ineffective but could also inadvertently perpetuate stereotypes or misconceptions. Thus, psychometric validation in each country in which a psychometric inventory is used is advisable to ensure a measure is culturally appropriate and applicable in the sociodemographic context.

1.4.2. Rationale for Testing ISRI in the Australian Context. While the United States and Australia exhibit certain overarching cultural similarities, there are distinct variations in their societal constructs, demographics, and historical backgrounds [18]. Among the 31 studies identified during the systematic review that informed the development of the MISR, 19 were conducted within the United States (61%), while none were from an Australian context. This overrepresentation of United States samples underscores the necessity of the present validation to ensure the effective

practical application of the ISRI in an Australian setting. Australia's multifaceted cultural landscape and diverse population introduce unique challenges and perspectives in an IPV context [19].

The dynamics of informal support in Australia may vary due to multiple factors reflective of the nation's heterogeneous communities and societal norms. For instance, less than half of the Australian population identifies as Christian [20], compared to two-thirds of the United States population [21]. Additionally, Australia has nearly one million people from Aboriginal and Torres Strait Islander backgrounds [22], whose cultural practices and kinship community structures can influence support dynamics. In contrast, the United States population has large Latino and African American communities [23], each with distinct cultural norms and values that shape help-giving behaviours. Moreover, Australia's population includes a higher proportion of immigrants from South Asia [24] with diverse cultural attitudes towards IPV and support mechanisms. These religious and cultural differences might shape help-giving norms and attitudes towards IPV, thereby influencing the ISRI's efficacy and relevance in the Australian context.

While it is not feasible to capture every sociocultural nuance, validating the ISRI in an Australian sample remains a worthwhile endeavour. This study serves as a foundational step towards its broader cultural validation. Such a validation initiates the process of adapting the ISRI to reflect Australia's cultural landscape, aligning with Prince's [25] guidance on the use of quantitative analysis in the adaption of psychometric tools across diverse contexts. While the ISRI was developed predominantly within a United States milieu, its applicability and effectiveness in Australia can provide insights into its versatility and the potential modifications needed to better serve diverse Australian needs [26].

1.4.3. Potential Implications for Australian IPV Services. Validating the ISRI within an Australian context holds potentially useful implications. First, a locally validated tool would likely enhance IPV safety planning intervention strategies. This approach aligns with growing calls within Australia for greater inclusion of social networks within the formal safety planning process. Such inclusions emphasise integrating both formal and informal support systems for effective survivor assistance [27]. Australian IPV services could leverage such a tool to bridge the gap between formal intervention systems and vital informal support networks, thereby creating a more cohesive and comprehensive support structure [8].

The validation could also foster better collaboration between formal services and informal supporters, optimising resources and potentially streamlining intervention pathways [12]. For instance, the tool's practical application in a clinical setting includes using it to facilitate conversation with survivors about their social support networks, helping to map out who in their network may be a positive support. IPV counsellors and advocates could then use the ISRI during safety planning sessions with survivors to identify and assess the readiness of the survivor's family, friends, and other informal supporters. By engaging directly with these

informal supporters, counsellors can use the ISRI to evaluate their preparedness to provide effective support, identifying areas where additional education or resources may be needed [10].

In practice, the ISRI could be used to facilitate targeted training for informal supporters, thereby enhancing their capability and readiness to assist IPV survivors [11]. For example, if the ISRI identifies that certain supporters lack the necessary knowledge or confidence to assist effectively, tailored educational programs can be developed to address these gaps. Additionally, by being attuned to Australia's unique sociocultural fabric, the ISRI's applicability could be enhanced, potentially facilitating improved understanding and support for IPV survivors. Ultimately, the ISRI can assist in developing a comprehensive and individualised safety plan that leverages the strengths of both informal and formal support systems, ensuring that all potential avenues of support are effectively mobilised to enhance the survivor's safety and well-being.

1.5. Aims of the Current Study. This study primarily aimed to assess the psychometric properties of the ISRI within an Australian context. The specific objectives were as follows:

- (1) To validate the factor structure of the ISRI using an Australian sample through the confirmatory factor analysis
- (2) To assess the reliability of the ISRI using an Australian sample, including its internal consistency and stability over time
- (3) To assess the validity of the ISRI using an Australian sample

2. Method

2.1. Participants. A total of 213 undergraduate students from an Australian university participated in this study. Participants were enrolled in a first-year psychology unit, predominantly studying online, and received a minor course credit for taking part. Participants ages ranged from 18 to 76 years, with a mean age of 34.1 years (SD = 10.8), and the majority of participants were female (75.1%). In terms of ethnicity, 76.1% identified as Australian, 5.6% as Asian, 5.1% as European, 4.2% as African, 2.0% as Aboriginal or Torres Strait Islander, and 7.0% as identified as belonging to another culture. Previous studies using the university research participation program have found samples to have diverse characteristics in terms of age, education level, employment status, parental responsibilities, and geographic location within Australia, suggestive of a nonclinical, community sample [28]. This is attributed to the large proportion of students studying online. Our sample with a mean age of 34.1 years also supports this diversity. Additionally, Druckman and Kam [29] support the use of such samples, asserting that student participants generally do not undermine a study's external validity, except in specific contexts where outcomes depend on unrepresented characteristics. Conversely, while Hanel and Vione [30]

caution against the broader interpretation of findings from these samples, they noted that students in their sample exhibited as much heterogeneity as the general public. Finally, Peterson and Merunka [31] highlight that while student samples may present limitations, they are often justified in exploratory research and studies aiming to test theoretical constructs. The controlled environment and availability of student participants make them a practical choice for initial hypothesis testing.

2.2. Measures. The Informal Supporter Readiness Inventory [13] is a self-report measure aimed at assessing an individual's ability to support a survivor of IPV. This measure quantifies four domains: normative, individual, situational-emotion, and situational-assessment. Participants indicate their level of agreement with each of the 57 statements, using a 7-point scale, where 1 represents "strongly disagree" and 7 represents "strongly agree." An example of an item from the normative factor is "the important people in my life believe that helping a domestic violence survivor is the right thing to do." Scores are calculated by summing the responses, with higher scores indicating a greater readiness to provide support. The normative factor has a range of 11 to 77, with a cutoff of 60 indicating higher readiness; the individual factor has a range of 16 to 112, with a cutoff of 85 indicating higher readiness; the situational-emotion factor has a range of 15 to 105, with a cutoff of 71 indicating higher readiness; and the situational-assessment factor has a range of 15 to 105, with a cutoff of 75 indicating higher readiness [13]. The ISRI has demonstrated robust construct validity and internal consistency, with Cronbach's alpha ranging from 0.85 to 0.92 across the four distinct factors [13]. The reliability of the current sample is reported in the results.

The Intent to Help Friends Scale [32] is a 10-item self-report measure that gauges an individual's intention to assist or support a known survivor of IPV. Participants rate their likelihood of performing specific behaviours on a five-point scale, where 1 represents "not at all likely" and 5 represents "extremely likely." An example item is "I would approach someone I know if I thought they were in an abusive relationship and let them know I'm here to help." Scores are calculated by summing the responses and computing an overall average response (between 1 and 5), with higher scores indicating a greater willingness to help or support a DV survivor. The IHFS has shown sound face and construct validity. It also demonstrated good reliability with a Cronbach's alpha of 0.87 [32] and 0.89 in this sample.

The Generic Job Satisfaction Scale (GJSS; [33]) is a 10-item self-report measure that assesses an individual's overall level of satisfaction with their job. Participants express their level of agreement with statements such as "I feel good about my job" on a 5-point scale, where 1 stands for "strongly disagree" and 5 for "strongly agree." Scores are calculated by summing the responses, resulting in a range between 10 and 50. Higher scores indicate a greater overall job satisfaction. The GJSS has demonstrated good reliability, with a Cronbach's alpha of 0.77 [35] and 0.89 in the current sample. The GJSS was included to assess divergent validity for the ISRI within the current sample.

2.3. Procedure. Prior to the commencement of the study, ethics approval was obtained from the university Human Research Ethics Committee. The survey was hosted on the Qualtrics [34] platform and advertised on the university research portal, which is open to both on-campus and off-campus students enrolled in first-year psychology units. Participants selected this survey from several listed options, based on a brief overview of the study. Participants were required to review the explanatory statement prior to providing informed consent and commencing. Participants were asked general demographic questions (age, gender, and ethnicity) and then presented with the ISRI, IHFS, and the GJSS. Upon completion, participants were provided with contact details of IPV support services, and the student counselling service in case any discomfort was triggered.

2.4. Statistical Analysis. To validate the structure of the ISRI [13] in an Australian sample, separate confirmatory factor analyses (CFAs) were performed for each of the ISRI's four factors using Jamovi [35]. The fit of the model was assessed using multiple fit indices. For the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI), values closer to 1 are preferred, with values ≥ 0.90 generally considered indicative of a good fit [36]. The root mean square error of approximation (RMSEA) is considered to have a good fit with values ≤ 0.08 , and the standardised root mean square residual (SRMR) is considered a good fit when values are less than or equal to 0.05 and an adequate fit between 0.05 and 0.08 [36].

Following the validation of the four-factor structures, the internal consistency of each factor and its respective subfactors were evaluated with Cronbach's alpha. A Cronbach's alpha value exceeding 0.70 is typically seen as indicative of robust internal consistency [37]. Additionally, test-retest reliability was assessed with intraclass correlation coefficients (ICC) to determine the scale's stability over time. Lastly, we assessed both the convergent and divergent validity of the scale. The former involved exploring the correlation between the scale and a parallel construct (the ITHF scale [32]), whereas the latter required comparing the scale with an unrelated construct [35]. A Fisher r -to- z transformation was employed to determine if there was a significant difference between the two correlation coefficients, offering further evidence for the scale's validity.

3. Results

3.1. Confirmatory Factor Analysis

3.1.1. Normative Factor Model. The normative factor's two subfactors consisted of 11 items. The scale items and descriptive statistics for the normative factor are listed in Table 1. Factor loadings for each item and the correlations between subfactors can be found in Figure 1. The subfactors analysed were subjective norms and sense of belonging. The model fit indices suggested a good fit to the data, with $\chi^2(40) = 75$, $p < 0.001$, CFI = 0.98, TLI = 0.97, SRMR = 0.05, and RMSEA = 0.06, 95% CI [0.04, 0.08]. The

TABLE 1: Descriptive statistics for normative factor items.

Subfactor	Item	M	SD
Subjective norms	Believe that although abusive behaviour in a relationship is wrong, you should not interfere as it is a private matter (R)	5.7	1.2
	Believe that it is important to help and support a domestic violence survivor	6.4	0.9
	Actively support domestic violence survivors	5.6	1.4
	Would help someone who was experiencing domestic violence	6.2	1.1
	Ignore domestic violence as it is a private matter (R)	6.1	1.3
	Take steps to help domestic violence survivors	5.8	1.3
Sense of belonging	I have a strong sense of connection with my local community/social network	4.6	1.5
	It is important to me that I feel a strong sense of connection to my local community/social network	4.9	1.3
	I feel like I belong in my community/social network	4.8	1.5
	I am happy that I belong to my social network	5.1	1.3
	There are times when I feel disconnected from my local community/social network (R)	4.1	1.2

Note. (R) denotes item is reverse coded.

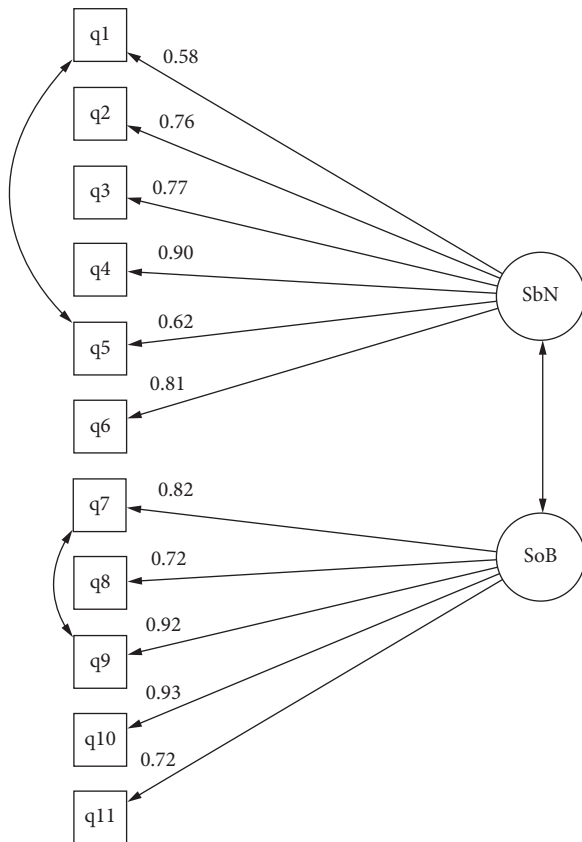


FIGURE 1: CFA of normative factor structure. Note. The loading for each item is shown above the arrow on the left side. SbN = subjective norms; SoB = sense of belonging.

standardised factor loadings were statistically significant ($p < 0.001$) and ranged from 0.58 to 0.93. Specifically, the standardised loadings for subjective norms ranged from 0.58 to 0.90, and for sense of belonging, from 0.72 to 0.93, indicating significant associations with their respective subfactors. The covariance between the subfactors demonstrated a significant, moderate, positive relationship, $r(213) = 0.38, p < 0.001$.

3.1.2. *Individual Factor Model.* The three-factor model for the individual factor demonstrated an acceptable fit to the data: $\chi^2(97) = 182, p < 0.001, CFI = 0.96, TLI = 0.95, SRMR = 0.05, RMSEA = 0.06, 95\% CI [0.05, 0.08]$. All standardised factor loadings, factor covariances, and residual covariances were statistically significant ($p < 0.001$), indicating that the observed variables were significantly associated with their respective latent factors. The scale items and descriptive statistics for the individual factor are listed in Table 2. The factor loadings and correlations between factors are displayed in Figure 2.

3.1.3. *Situational-Emotional Factor Model.* The situational-emotional factor was examined across four subfactors: survivor relationship, perpetrator relationship, emotional response, and empathy. The model indicated a strong fit: $\chi^2(82) = 107, p = 0.033, CFI = 0.98, TLI = 0.98, RMSEA = 0.04, 95\% CI [0.01, 0.06], SRMR = 0.05$. All standardised factor loadings, factor covariances, and residual covariances were statistically significant ($p < 0.001$), signifying that each observed variable was significantly associated with its corresponding latent factor. The scale items and descriptive statistics for the situational-emotional factor are listed in Table 3. The factor loadings and correlations between factors are displayed in Figure 3.

3.1.4. *Situational-Assessment Factor Model.* The situational-assessment factor was examined across five subfactors of survivor responsibility, perpetrator responsibility, risk, abuse, and change readiness. The model fit indices suggested a good fit: $\chi^2(94) = 120, p = 0.035, CFI = 0.98, TLI = 0.98, SRMR = 0.04, RMSEA = 0.04, 95\% CI [0.01, 0.06]$. The standardised factor loadings were statistically significant ($p < 0.001$) and ranged from 0.74 to 0.95 for all items across all sub-factors. More specifically, the loadings for each factor—survivor responsibility (0.81 to 0.96), perpetrator responsibility (0.85 to 0.94), risk (0.74 to 0.80), abuse (0.79 to 0.96), and change readiness (0.81 to 0.95)—all illustrated significant associations with their respective factors. All factor intercorrelations were statistically significant at

TABLE 2: Items and descriptive statistics for the individual factor.

Subfactor	Items	M	SD
Efficacy	I know how to support a domestic violence survivor	4.7	1.4
	I would know what to do if I found out someone close to me was experiencing domestic violence in their relationship	4.8	1.4
	If I suspected someone close to me was experiencing domestic violence, I would feel confident to talk to them about it	5.1	1.4
	It would be difficult to start a conversation about domestic violence with a survivor who was close to me. (R)	4.4	1.4
	I am able to support a survivor to access professional services they might need	5.4	1.2
	I know where to go to find community support available to survivors	5.0	1.5
	I would provide support to a domestic violence survivor who was close to me	6.2	0.9
Social tolerance	I would find it difficult to provide support to someone close to me if they were experiencing domestic violence. (R)	5.4	1.2
	There are no situations where a man should be abusive towards his partner	6.3	1.1
	Sometimes men must use acts of domestic violence to keep their relationship in order (R)	6.5	1.0
	I believe I have a role in stopping domestic violence	5.9	1.0
Exposure to Violence	As a member of society, I have a role in ending domestic violence	6.0	1.1
	I believe my own experiences of violence:		
	Have prepared me to be able to support a domestic violence survivor	4.7	1.7
	Give me insight into how to best support a domestic violence survivor	4.6	1.6
	Make me a better informal supporter	4.8	1.5
	Would leave me triggered if I supported a domestic violence survivor (R)	4.8	1.3

Note. (R) denotes item is reverse coded.

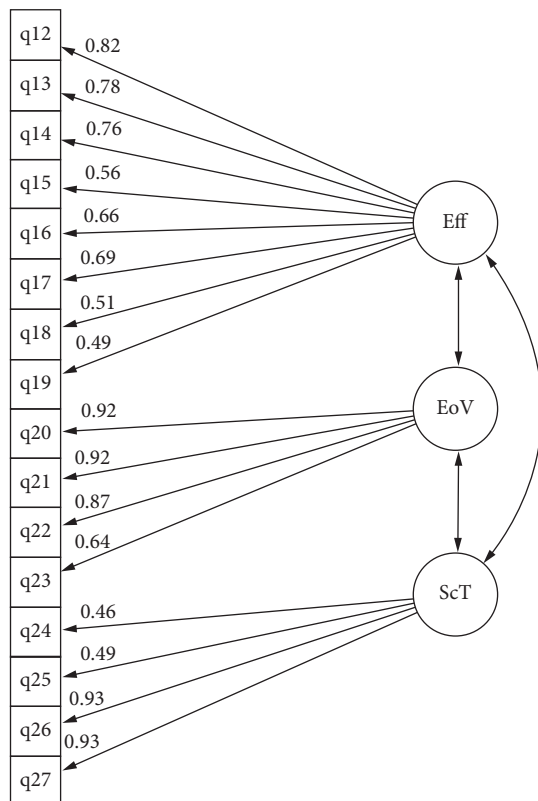


FIGURE 2: CFA of individual factor structure. Note. The loading for each item is shown above the arrow on the left side. Eff = efficacy; EoV = experience of violence; ScT = social tolerance.

$p < 0.001$. The residual covariances ranged from 0.31 to 0.69, and the residual intercepts varied between 3.2 and 5.5. The residual estimates were also statistically significant ($p < 0.001$). The scale items and descriptive statistics for the

situational-assessment factor are listed in Table 4. The factor loadings and correlations between factors are displayed in Figure 4.

3.2. Tests of Reliability. The internal consistency of the four factors of the ISRI (normative, individual, situational-emotion, and situational-assessment) was assessed using Cronbach's alpha. The Cronbach's alpha values for the normative, individual, situational-emotional, and situational-assessment subscales were 0.88, 0.91, 0.84, and 0.81, respectively. These results indicate that the four factors of the ISRI exhibit good-to-excellent internal consistency [38].

The test-retest reliability of the ISRI was assessed using interclass correlation coefficients (ICC). From the original sample, a total of 22 participants agreed to complete the ISRI at two time points, separated by a four-week interval as suggested by Papadakaki et al. [39]. A sample size of 22 participants was deemed sufficient to detect an ICC value of 0.50, with the parameters for this calculation being an alpha fixed at 0.05 and a power of 80% [40, 41]. The sample size calculation was facilitated using the PASS software [42]. The analysis indicated that each of the four subfactors of the ISRI demonstrated good test-retest reliability [43]. Specifically, the normative subfactor had an ICC of 0.81, 95% CI [0.60, 0.92]. The individual subfactor recorded an ICC of 0.89, 95% CI [0.75, 0.95]. The situational-emotion subfactor had an ICC of 0.79, 95% CI [0.56, 0.91]. Lastly, the situational-assessment subscale indicated an ICC of 0.82, 95% CI [0.62, 0.92].

3.3. Tests of Validity. To assess convergent validity, the correlation between the ISRI scale and the IHFS was calculated. The findings showed a strong positive correlation (r

TABLE 3: Items and descriptive statistics for the situational-emotional factor.

Subfactor	Items	M	SD
Relationship-survivor	I have a strong positive relationship with the survivor	5.1	1.6
	There is often conflict in my relationship with the survivor (R)	5.2	1.6
	I could count on the survivor to help me if I had a problem	4.8	1.7
Relationship-perpetrator	I have a strong positive relationship with the perpetrator (R)	6.1	1.3
	The perpetrator is an important person in my life (R)	6.2	1.3
	There is often conflict in my relationship with the perpetrator	5.6	1.2
Emotional response	I have hope that supporting the survivor will make things better	5.9	1.0
	I would feel guilty if I ignored the survivor	6.1	1.1
	Learning that the survivor was experiencing domestic violence made me feel very angry (R)	5.8	1.0
	Thinking about the survivor's experience of domestic violence makes me feel anxious (R)	5.7	1.0
Empathy	When I think about the survivor's experience I am overcome with emotions (R)	5.6	1.0
	I felt empathy for the survivor	5.3	1.1
	I could understand what the survivor was going through	5.3	1.1
	I found it difficult to know what goes on in the mind of the survivor (R)	5.2	1.1
	I can imagine how the survivor felt	5.3	1.1

Note. (R) denotes item is reverse coded.

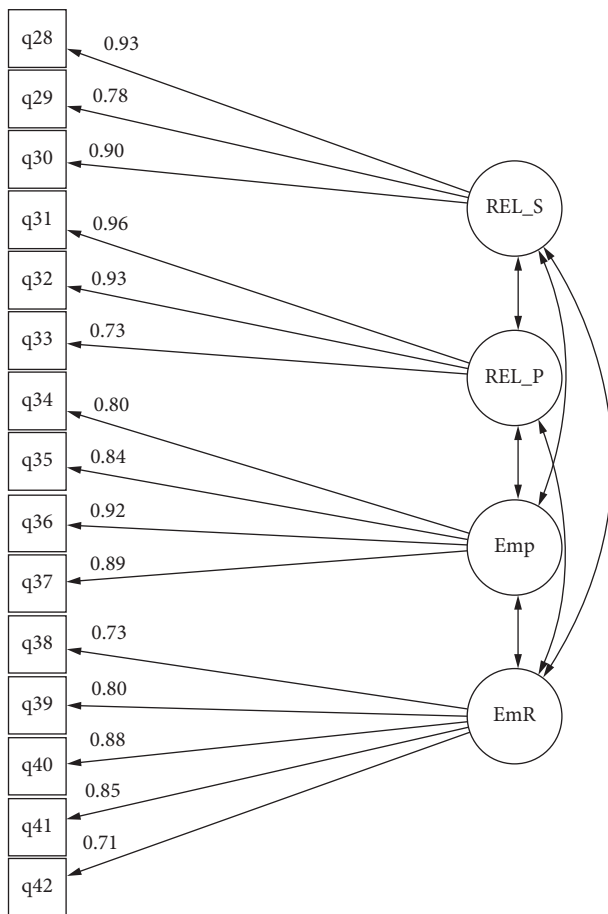


FIGURE 3: CFA of situational-emotion factor structure. Note. The loading for each item is shown above the arrow on the left side. REL_S = relationship survivor; REL_P = relationship perpetrator; Emp = empathy; EmR = emotional response.

[211] = 0.78, $p < 0.001$) [44], indicating that the ISRI captures a construct comparable to that captured by the IHFS, thereby supporting convergent validity. For divergent

validity, the association between the ISRI and the GJSS was calculated. The derived correlation coefficient between these two scales, while statistically significant, was small ($r[211] = 0.22$, $p < 0.001$), suggesting that the ISRI measures a construct distinct from job satisfaction, thereby providing support for divergent validity. To see if there was a significant difference between these correlations, a Fisher r -to- z transformation was executed. The outcome was significant ($z = 8.98$, $p < 0.001$), indicating that there is a significant difference between the ISRI's correlations to the IHFS and the GJSS. These findings add support to the convergent and divergent validity of the ISRI.

4. Discussion

The primary aim of this research was to validate the ISRI's [13] suitability in an Australian sample. The foundation of the ISRI is grounded in the Model of Informal Supporter Readiness [10], which was constructed following a systematic review of informal supporter literature. This model integrates the diverse variables found to relate to an informal supporter's readiness to help. Given the increasing awareness and acknowledgment of IPV and its profound implications, it is necessary to ensure that social network-oriented approaches, where informal support and professional support services collaboratively work with IPV survivors, are supported, and survivors are connected to robust safety networks [8]. The ISRI, in this context, emerges as a potentially useful instrument. Validating the ISRI's efficacy and relevance for an Australian milieu aims to better align it with sociocultural nuances and dynamics [19], thereby enhancing its utility in assessing and evaluating the supportive environment for survivors of IPV.

The confirmatory factor analyses of the ISRI in our Australian sample supported its distinct four factors comprising of normative, individual, situational-emotion, and situational-assessment helper readiness [13]. The factor loadings were all statistically significant and ranged from 0.74 to 0.96, suggesting robust associations of items with

TABLE 4: Items and descriptive statistics for the situational-assessment factor.

Subfactor	Items	M	SD
Responsibility-survivor	The survivor provoked her partner’s abusive behaviour (R)	6.2	1.4
	I felt that the survivor brought the experience on herself (R)	6.4	1.3
	The survivor’s actions caused the domestic violence (R)	6.4	1.2
Responsibility-perpetrator	I think the perpetrator was responsible for his choice to be abusive	6.2	1.4
	I think the perpetrator was in control of his actions	5.8	1.4
	I think the perpetrator decided to use acts of domestic violence	5.9	1.4
Risk	Worrying about my own safety was a big factor in deciding whether or not to support the survivor	5.6	1.2
	Worrying about the safety of my family was a big factor in deciding whether or not to support the survivor	5.6	1.5
	Worrying about the safety of the survivor if her partner knew I was supporting her was a big factor in deciding whether or not to provide support	5.6	1.4
Change readiness	I felt that the survivor was not “ready” for change or to receive support (R)	5.0	1.5
	It was the right time to provide support to the survivor	5.2	1.3
	I knew the survivor was in the “right place” to receive support	5.0	1.4
Abuse	In my opinion: the survivor was experiencing severe domestic violence	4.9	1.6
	the survivor was experiencing frequent domestic violence	5.0	1.6
	the survivor was experiencing ongoing domestic violence	5.2	1.5

Note. (R) denotes item is reverse coded.

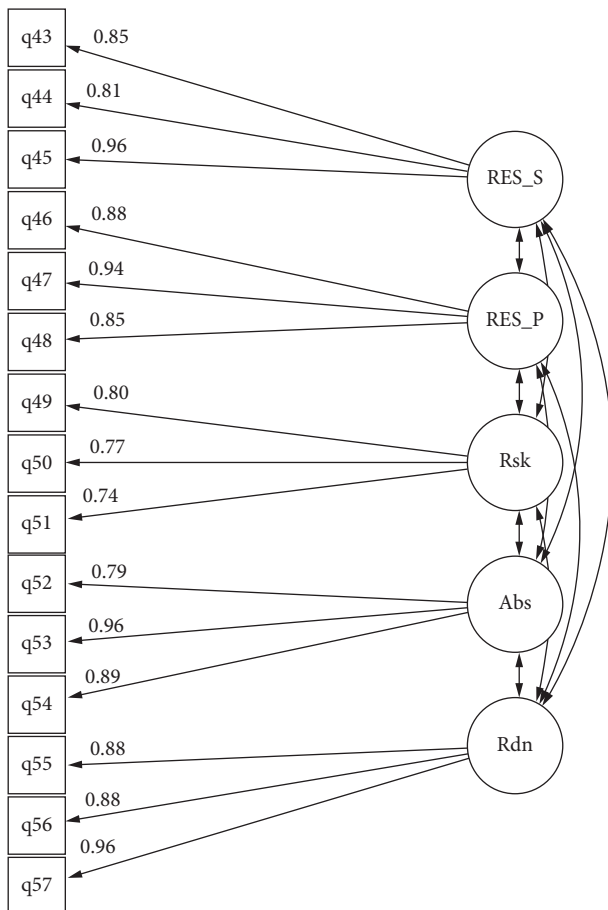


FIGURE 4: CFA of situational-assessment factor structure. Note. The loading for each item is shown above the arrow on the left side. RES_S = responsibility survivor; RES_P = responsibility perpetrator; Rsk = risk; Abs = abuse; Rdn = change readiness.

their corresponding subfactors. These factor loadings reflect the ISRI’s capability to distinctly capture each of the identified facets of informal supporter readiness. The consistency and strength of these loadings underscore the precision and relevancy of the ISRI within its intended context. The validation of the ISRI within an Australian sample contributes to the understanding of its potential applicability in diverse global contexts and aligns with prior research in the field of IPV survivor support [10].

4.1. Reliability and Validity of the ISRI in an Australian Sample. The ISRI has provided initial evidence supporting its utility in assessing IPV survivor supporter readiness in Australia. The results of the reliability analysis of the ISRI demonstrated good-to-excellent internal consistency and good test-retest reliability across all four factors based on established conventions [38, 39, 43]. The ISRI’s validity was established through both convergent and divergent evaluations, with a strong positive correlation found with the IHFS [32], reinforcing its convergent validity, and a weak association with the GJSS [35], thereby supporting its divergent validity. The distinctness of these correlations, as indicated by a Fisher *r*-to-*z* transformation, highlights the ISRI’s purposeful and specific measurements. Furthermore, the concordance between the current validation and findings from Davies et al. [13] suggests the ISRI’s consistent reliability and validity across different contexts.

4.2. Practical Application of the ISRI. The ISRI has practical utility as a tool for clinicians, researchers, and policymakers engaged in enhancing IPV support mechanisms within Australia. Its methodological robustness offers multiple avenues for practical application. First, clinicians can utilise

the ISRI to facilitate exploration of the social network with the survivor and discern the preparedness of informal supporters, promoting interaction between the social network and the formal support system to facilitate the development of tailored support interventions that align with the survivor's needs [10]. This customisation contributes to ensuring that support is not just provided but is also contextually appropriate and impactful. In research, the ISRI provides a foundation for future studies to explore the effectiveness and cultural relevance of informal supporter interventions within diverse Australian populations. This validation also opens avenues for comparative research between Australian and international contexts, enhancing the global understanding of informal support dynamics in IPV situations. Additionally, there are also policy implications for the ISRI. Policymakers, recognising the pivotal role of informal supporters, can harness the insights gleaned from the ISRI to draft comprehensive policies. This could encompass resource allocation strategies for targeted training or fostering community initiatives that amplify the strength and reach of informal support networks. Lastly, the ISRI provides an avenue for fostering collaborative initiatives. By identifying areas where professional services can be complemented by informal support, it promotes a holistic approach to survivor assistance [8].

4.3. Limitations. While this study provides initial insights into the applicability and utility of the ISRI within an Australian context, it is necessary to acknowledge its limitations. First, while the sample size was deemed sufficient for the immediate purposes of this study, it only to a limited extent captures the intricate diversity and multifaceted nuances inherent to the broader Australian population [18]. As such, there is a constraint on the generalisability of our findings, especially when considering specific subgroups or minority demographics that were not adequately represented in the sample [19]. Despite this limitation, the current findings support strategic approaches to enhancing the efficacy of support mechanisms, particularly given the relevance of IPV as a pressing national issue [45].

Moreover, the methodological approach of validating the ISRI, a self-report measure, presents its own set of challenges. Self-report measures, while offering direct insight into an individual's perceptions and beliefs, are intrinsically subjective in nature. Given that the ISRI aims to assess the readiness of informal supporters, it is inherently reliant on participants' personal evaluations and introspections [13]. While this subjective lens can be invaluable in gauging personal readiness and intent, it is also susceptible to various biases. Respondents might, for example, provide answers they believe to be expected of them or answers that reflect aspirational rather than actual readiness [46]. This could be influenced by factors such as social desirability, cognitive dissonance, or lack of introspective accuracy. Therefore, while the insights provided by the ISRI remain useful, it is essential for practitioners and subsequent researchers to recognise and account for these potential biases when interpreting and applying the findings.

4.4. Suggestions for Future Research. The promising results from this study warrant further exploration. Future investigations could consider applying the ISRI in varied settings, thereby broadening its applicability and understanding. It might be especially useful to test the ISRI among different populations, offering a more comprehensive view of its effectiveness and relevance. Of particular importance would be its implementation and assessment within the Australian Aboriginal population. Notably, Aboriginal and Torres Strait Islander people comprised just 2% of the study's participants. Given the vital role social networks play for Aboriginal IPV survivors, especially in the face of sometimes lacking culturally informed or culturally safe formal support systems, or the absence of such support in regional and remote areas [47], a validation of the ISRI in this context would be useful. Such efforts could evaluate the ISRI's applicability in this important subpopulation and also enhance its utility, making it a tool more broadly appropriate for the diversity of Australian society.

5. Conclusion

This research provided preliminary evidence for the effectiveness of the ISRI within the context of IPV survivor support in Australia. The key findings support the ISRI's comprehensive factor structure, reliability, and validity, thereby providing initial support for it as a suitable instrument for assessing the readiness of informal supporters, as well as identifying their strengths and areas needing support. For survivors of IPV and their professional allies, such as social workers, understanding the readiness of these informal supporters is paramount. By assessing readiness, tailored approaches and strategies can be developed to ensure survivors have a resilient and supportive network [8, 10]. The validated ISRI underscores the importance of recognising and harnessing this potential in the broader efforts to enhance survivor safety and wellbeing in an Australian context through network-oriented approaches.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Acknowledgments

This research was supported by an Australian Government Research Training Program (RTP) Scholarship. Open access publishing facilitated by University of New England, as part of the Wiley-University of New England agreement via the Council of Australian University Librarians.

References

- [1] World Health Organisation, "Violence against women [Fact sheet]," 2021, <https://www.who.int/news-room/fact-sheets/detail/violence-against-women>.

- [2] L. Sardinha, M. Maheu-Giroux, H. Stöckl, S. R. Meyer, and C. García-Moreno, "Global, regional, and national prevalence estimates of physical or sexual, or both, intimate partner violence against women in 2018," *The Lancet*, vol. 399, no. 10327, pp. 803–813, 2022.
- [3] E. Stark and M. Hester, "Coercive control: update and review," *Violence Against Women*, vol. 25, no. 1, pp. 81–104, 2018.
- [4] K. Alsaker, B. E. Moen, T. Morken, and V. Baste, "Intimate partner violence associated with low quality of life – a cross-sectional study," *BMC Women's Health*, vol. 18, no. 1, 2018.
- [5] Australian Bureau of Statistics, "Personal safety, Australia [factsheet]," 2022, <https://www.abs.gov.au/statistics/people/crime-and-justice/personal-safety-australia/latest-release>.
- [6] Department of Social Services, "Women's safety [factsheet]," 2022, <https://www.dss.gov.au/our-responsibilities/women/publications-articles/reducing-violence/national-plan-to-reduce-violence-against-women-and-their-children/economic-cost-of-violence-against-women-and-their-children?HTML#1>.
- [7] R. L. Davies, K. Rice, and A. J. Rock, "The effects of covid-19 social restrictions and subsequent informal support limitations on intimate partner violence: an opinion piece," *Frontiers in Global Women's Health*, vol. 3, Article ID 829559, 2022.
- [8] L. A. Goodman, K. M. Chronister, E. Gutowski, M. Mendoza, and N. Kumar, "Measuring community engagement practices in domestic violence programs: the Network Oriented Practices Scale (NOPS)," *Journal of Family Violence*, vol. 12, no. 1, 2023.
- [9] M. Mahapatro, M. Prasad, and S. Singh, "Role of social support in women facing domestic violence during lockdown of covid-19 while cohabiting with the abusers: analysis of cases registered with the family counseling centre, alwar, India," *Journal of Family Issues*, vol. 42, no. 11, pp. 2609–2624, 2021.
- [10] R. L. Davies, K. Rice, and A. J. Rock, "A systematic review of informal supporters of intimate partner violence survivors: the intimate partner violence model of informal supporter readiness," *PeerJ*, vol. 11, Article ID 15160, 2023.
- [11] L. A. Goodman, J. E. Fauci, C. M. Sullivan, C. D. Di Giovanni, and J. M. Wilson, "Domestic violence survivors' empowerment and mental health: exploring the role of the alliance with advocates," *American Journal of Orthopsychiatry*, vol. 86, no. 3, pp. 286–296, 2016.
- [12] A.-M. Nolet, C. Morselli, and M.-M. Cousineau, "The social network of victims of domestic violence: a network-based intervention model to improve relational autonomy," *Violence Against Women*, vol. 27, no. 10, pp. 1630–1654, 2020.
- [13] R. L. Davies, K. Rice, and A. J. Rock, "Development and validation of the informal supporter readiness inventory (ISRI)," *PLoS One*, vol. 19, no. 3, Article ID e0296770, 2024.
- [14] E. Gracia, F. García, and M. Lila, "Public responses to intimate partner violence against women: The influence of perceived severity and personal responsibility," *The Spanish Journal of Psychology*, vol. 12, no. 2, pp. 648–656, 2009.
- [15] P. Kūkea Shultz and K. Englert, "Cultural validity as foundational to assessment development: an Indigenous example," *Frontiers in Education*, vol. 6, Article ID 701973, 2021.
- [16] M. S. Maguele and N. Khuzwayo, "Mapping evidence of socio-cultural factors in intimate partner violence among young women: a scoping review protocol," *Systematic Reviews*, vol. 8, no. 1, 312 pages, 2019.
- [17] M. McKenzie, K. L. Hegarty, V. J. Palmer, and L. Tarzia, "Walking on eggshells: A qualitative study of how friends of young women experiencing intimate partner violence perceive their role," *Journal of Interpersonal Violence*, vol. 37, no. 9–10, 2020.
- [18] M. E. White and L. Satyen, "Cross-cultural differences in intimate partner violence and depression: a systematic review," *Aggression and Violent Behavior*, vol. 24, pp. 120–130, 2015.
- [19] K. Webster, *A Preventable Burden: Measuring and Addressing the Prevalence and Health Impacts of Intimate Partner Violence in Australian Women (ANROWS Compass, 07/2016)*, ANROWS, Sydney, Australia, 2016.
- [20] Australian Bureau of Statistics, "2021 census shows changes in Australia's religious diversity," 2022, <https://www.abs.gov.au/media-centre/media-releases/2021-census-shows-changes-australias-religious-diversity>.
- [21] Pew Research Center, "Modelling the future of religion in America," 2022, <https://www.pewresearch.org/religion/2022/09/13/how-u-s-religious-composition-has-changed-in-recent-decades/>.
- [22] Australian Bureau of Statistics, "Estimates of aboriginal and Torres Strait Islander Australians," 2021, <https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/latest-release>.
- [23] United States Census Bureau, "Quick facts," 2023, <https://www.census.gov/quickfacts/fact/table/US/PST045222>.
- [24] Australian Bureau of Statistics, "Australia's population by country of birth," 2024, <https://www.abs.gov.au/statistics/people/population/australias-population-country-birth/latest-release>.
- [25] M. Prince, "Measurement validity in cross-cultural comparative research," *Epidemiologia e Psichiatria Sociale*, vol. 17, no. 3, pp. 211–220, 2008.
- [26] L. Zark and L. Satyen, "Cross-cultural differences in student attitudes toward intimate partner violence: a systematic review," *Trauma, Violence, and Abuse*, vol. 23, no. 3, pp. 1007–1022, 2021.
- [27] Government of Queensland, "Delivery of recommendations. Not now, not ever: putting an end to domestic and family violence in Queensland," 2022, <https://www.publications.qld.gov.au/ckan-publications-attachments-prod/resources/6f08928c-dec3-4600-add9-ef808f60e913/dfvp-nnne-delivery-of-recommendations-report.pdf?ETag=b470daba0b08b85e17890f793dec62e8>.
- [28] K. Rice, N. S. Schutte, A. J. Rock, and C. V. Murray, "Structure, validity and cut-off scores for the APA emerging measure of DSM-5 social anxiety disorder severity scale (SAD-D)," *Journal of Anxiety and Depression*, vol. 10, no. 406, pp. 1–6, 2021.
- [29] J. Druckman and C. Kam, "Students as experimental participants: a defense of the narrow data base," in *Cambridge Handbook of Experimental Political Science*, J. Druckman, D. Greene, J. Kuklinski, and A. Lupia, Eds., pp. 41–57, Cambridge University Press, Cambridge, UK, 2011.
- [30] P. H. Hanel and K. C. Vione, "Do student samples provide an accurate estimate of the general public?" *PLoS One*, vol. 11, no. 12, Article ID e0168354, 2016.
- [31] R. A. Peterson and D. R. Merunka, "Convenience samples of college students and research reproducibility," *Journal of Business Research*, vol. 67, no. 5, pp. 1035–1041, 2014.
- [32] V. L. Banyard, M. M. Moynihan, A. C. Cares, and R. A. Warner, "How do we know if it works? Defining measurable outcomes in bystander-focused violence prevention," *Psychology of Violence*, vol. 4, no. 1, pp. 101–115, 2014.

- [33] S. Macdonald and P. MacIntyre, "The generic job satisfaction scale," *Employee Assistance Quarterly*, vol. 13, no. 2, pp. 1–16, 1997.
- [34] Qualtrics, "Qualtrics XM: the leading experience management software," 2023, <https://www.qualtrics.com/>.
- [35] "The Jamovi Project," 2023, <https://www.jamovi.org>.
- [36] J. Sun, "Assessing goodness of fit in confirmatory factor analysis," *Measurement and Evaluation in Counseling and Development*, vol. 37, no. 4, pp. 240–256, 2017.
- [37] M. Tavakol and R. Dennick, "Making sense of Cronbach's alpha," *International Journal of Medical Education*, vol. 2, pp. 53–55, 2011.
- [38] K. S. Taber, "The use of Cronbach's alpha when developing and reporting research instruments in science education," *Research in Science Education*, vol. 48, no. 6, pp. 1273–1296, 2017.
- [39] M. Papadakaki, D. Prokopiadou, E. Petridou, M. Kogevinas, and C. Lionis, "Defining physicians' readiness to screen and manage intimate partner violence in Greek primary care settings," *Evaluation and the Health Professions*, vol. 35, no. 2, pp. 199–220, 2012.
- [40] M. A. Bujang and N. Baharum, "A simplified guide to determination of sample size requirements for estimating the value of intraclass correlation coefficient: a review," *The Journal of the School of Dental Sciences*, vol. 12, no. 1, pp. 1–11, 2017.
- [41] J. Cohen, *Statistical Power Analysis for the Behavioral Sciences*, Routledge Academic, London, UK, 1988.
- [42] *PASS 2023 Power Analysis and Sample Size Software*, NCSS, LLC, Kaysville, Utah, USA, 2023.
- [43] T. K. Koo and M. Y. Li, "A guideline of selecting and reporting intraclass correlation coefficients for reliability research," *Journal of Chiropractic Medicine*, vol. 15, no. 2, pp. 155–163, 2016.
- [44] H. Akoglu, "User's guide to correlation coefficients," *Turkish Journal of Emergency Medicine*, vol. 18, no. 3, pp. 91–93, 2018.
- [45] Australian Institute of Health and Welfare, "Family, domestic and sexual violence [Fact sheet]," 2023, <https://www.aihw.gov.au/reports/domestic-violence/family-domestic-and-sexual-violence>.
- [46] S. Bauhoff, "Self-report bias in estimating cross-sectional and treatment effects," in *Encyclopedia of Quality of Life and Well-Being Research*, A. c. Michalos, Ed., pp. 5798–5800, Springer, Berlin, Germany, 2014.
- [47] J. Spangaro, S. Herring, J. Koziol-McClain, A. Rutherford, M.-A. Frail, and A. B. Zwi, "They aren't really Black Fellas but they are easy to talk to: factors which influence Australian Aboriginal women's decision to disclose intimate partner violence during pregnancy," *Midwifery*, vol. 41, pp. 79–88, 2016.