The psychometric properties of an intimate partner violence education outcome measure☆

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ABSTRACT

Background: The need for increased education on intimate partner violence
(IPV) for healthcare practitioners has been well established. Most Australian healthcare practitioners are educated at university, where educational interventions could be delivered to students. Specific IPV outcome measurement instruments demonstrating sound psychometric properties would enable accurate evaluation of educational interventions to ensure effectiveness.
Methods: The psychometric properties of the Modified Physician REadiness to Manage Intimate partner violence Scale (Modified PREMIS) were measured when delivered to a cohort of Australian paramedic and nursing students, performing principal component analysis, and evaluating dimensionality, internal consistency, and test-retest reliability.
Results: In total, 260 responses were received, participants were primarily paramedicine students (85.0%) with the remainder double degree nursing and paramedicine students (15.0%). Actual and Perceived Knowledge and Perceived Preparation subscales demonstrated variable validity and reliability. Principal component analysis of opinion items revealed a 5-factor solution, with identified subscales demonstrating mostly low internal consistency (Cronbach's alpha between 0.47 and 0.80). Correlations between subscales demonstrated few significant correlations above $r = 0.3$ which may indicate problems with construct validity. Medium to high test-retest reliability was found for subscales with spearman's rho values between 0.63 and 0.88.
Conclusions: The scale did not demonstrate robust psychometric properties and some items may not be appropriate for use with Australian healthcare student cohorts. Pending revisions and subsequent psychometric appraisal the instrument should be used with caution; however an updated instrument may contribute as a valuable tool for IPV educational research and this paper provides several findings which may be of use when revising the scale.

1. Introduction

The recent release of the first ever comprehensive recommendations for the global healthcare curriculum regarding intimate partner violence (IPV) (National Institute for Health and Care Excellence, 2014; World Health Organization, 2013a) has increased the need for effective educational interventions with robust outcome measures. Defined as abuse between people currently or formerly in an intimate relationship, IPV occurs when a person uses physical, sexual, psychological or any other form of abuse to control or otherwise harm their partner (World Health Organization, 2014). Intimate partner violence is a leading contributing factor to mortality and morbidity for women worldwide, with the World Health Organisation estimating that 1 in 3 women will experience IPV at some point in their life (World Health Organization, 2013b).

Healthcare practitioners such as nurses and paramedics would be highly likely to encounter IPV patients in their practice (Campbell,

2002), and may be a good resource to recognise and refer women to care and support, which is a key strategy to reduce overall harm and violence (García-Moreno et al., 2015). Qualitative research has shown that women feel comfortable being asked about and discussing IPV with healthcare professionals, provided the practitioner is knowledgeable, non-judgemental and uses a sensitive and empathetic manner (Feder et al., 2006). Therefore, education and training which generates skilled practitioners capable of effectively recognising IPV patients and providing an appropriate response is needed (World Health Organization, 2013a). New healthcare practitioners in Australia are commonly required to undertake an accredited Bachelor degree in their respective disciplines in order to practice, meaning IPV education could begin prequalification for healthcare students. However, there is a lack of data showing the effectiveness of educational interventions delivered to healthcare practitioners and students (Sawyer et al., 2016).

A key barrier to measuring education is the scarcity of outcome measures which have been shown to have robust psychometric

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properties when delivered to a wide variety of healthcare professions. Therefore, there is a need to rapidly assess the currently available instruments to provide evidence of their suitability.

This study will report on the psychometric properties of such an instrument when delivered to an Australian healthcare student cohort.

2. Methods

2.1. Design

The Modified PREMIS was delivered to healthcare students attending one of two Australian universities between September and December 2016.

2.2. Participants

Participants were healthcare students who had completed all lectures in the first, second, third and fourth years of their Bachelor degree. Participants consisted of paramedic students undertaking a three-year Bachelor degree, and double degree paramedic and nursing students undertaking a four-year Bachelor degree. Bachelor degrees are the standard method of educating students for future practice in most healthcare sectors in Australia, and typically comprise theoretical and practical coursework.

2.3. Recruitment

Recruitment was performed following scheduled lectures. Students were briefed on the study by one of the authors who was unknown to them, then offered a paper-based or online survey accessible from a web browser. Submission of the paper-based survey was done by placing it in a pile in the lecture theatre, which was then collected by one of the research team. It was not possible to identify which students completed the survey and submission was anonymous. Students were requested to re-take the test online between 2 and 3 weeks after the initial test to measure test-retest reliability. Students undertaking the test twice were eligible to win a stethoscope valued at AUD$70.

2.4. Instrument

The Modified Physician REadiness to Manage Intimate partner violence Survey (Modified PREMIS) (Connor et al., 2011a) was used in this study. This original scale (called the PREMIS) was designed to measure the knowledge, attitudes and preparedness (KAP) of US Physicians to manage IPV patients (Short et al., 2006) and was subsequently adapted for use with healthcare students (Connor et al., 2011a). The instrument measures background demographics, Perceived Knowledge, Actual Knowledge, and Perceived Preparation to manage IPV patients, as well as opinions, and personal IPV experience in a 5 part, 85 item survey.

The Modified PREMIS has been used with US healthcare populations including medical, dental, nursing and social work students (Connor et al., 2011a; Connor et al., 2013; Connor et al., 2011b) and demonstrated variable internal consistency between the subscales, with potentially poor construct validity (Connor et al., 2011a). No study has reported on the test-retest reliability of the Modified PREMIS and the psychometric properties have not been reported on with Australian healthcare populations, although the scale has been used with Australian midwifes (Baird et al., 2015), paramedics (Sawyer et al., 2018), and paramedic students (Sawyer et al., 2017).

In this study, slight alterations were made to the items by altering the wording of 'health care practitioner' to 'paramedic'. This study focused solely on IPV and therefore four questions specific to child abuse and elder abuse were removed. The same scoring method as described in the original PREMIS (Short et al., 2006) was used, with changes to reflect omitted questions. In addition, as per Connor et al. (2011b), a dichotomous variable named 'lifetime experience of IPV' was created which categorised participants into those who have experienced IPV personally or witnessed it in their family, and those who had not.

Respondent data was reported on in a previous article (Sawyer et al., 2017).

2.5. Data Analysis

To conduct analysis, SPSS version 18 was used. The Modified PREMIS contains subscales which were calculated using syntax supplied in the original PREMIS package (Short et al., 2006). Principal component analysis (PCA) was used to evaluate the psychometric properties of the opinion items as this instrument has not been tested before in this population (Pett et al., 2003). The Kaiser-Meyer-Olkin (KMO) measure was used to define sampling adequacy, with a score above 0.70 considered adequate (Kaiser, 1974). Bartlett's test for sphericity was estimated to test the null hypothesis that no variables are significantly correlated. The variable to case ratio was measured, with acceptance set and met at a minimum of 10:1 (Nunnally, 1994). The minimum r value for correlations between items was set at 0.3, which is considered the minimum correlational size to indicate an effect (Lipsey, 1998).

Cronbach's alpha coefficient was used to assess internal consistency within identified subscales as a measure of reliability. Spearman's rank coefficients were calculated between existing and new subscales identified through PCA, which was used as an indication of construct validity. Test re-test reliability was measured using Spearman's correlations.

As per Rubin (1976), where missing data were encountered, surveys with items missing completely at random were retained and surveys with non-random or > 10 missing items were excluded.

Ethics approval was granted by a Human Ethics Research Committee.

3. Results

Demographic properties of this sample are presented in Table 1. Females accounted for 59.2% of the respondents, which was equal to the ratio of females to males undertaking the course. Most students (65.0%) reported no previous training in domestic violence.

A total of 260 respondents provided complete or near complete surveys in the initial run which comprised a response rate of 80.5% of eligible students ($n = 323$ currently enrolled students). Following a two-week period, a convenience sample of 18 of the previous respondents provided data to conduct test-retest reliability (6.9% of the initial run sample). The test-retest sample was similar in gender, was slightly older (mean age 25.4 years old), and was more predominantly 1st year. They had similar amounts of previous training and previous personal and lifetime experience with IPV.

Analysis of returned surveys found that all participants had completed the majority of questions, with only random missing data found. Where missing data impacted on the calculation of subscales, pairwise deletion was used and the adjusted n was noted (Rubin, 1976).

3.1. Factor Analysis

Factor analysis was performed on the opinion items to allow comparison with previous psychometric studies. Other items were not included as they were considered stand-alone scales. A principal component analysis (PCA) was conducted on the 28 opinion items using varimax rotation as this assumes no correlation between the variables (Pett et al., 2003). The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, the result was a KMO = 0.78, described as 'meritorious' according to Kaiser and above the acceptable limit to conduct factor analysis (Kaiser, 1974). Bartlett's test of sphericity indicated that correlations between items was sufficiently large for PCA, $x^2(210) = 1437.509$, $p < .000$. Variable to case ratio was 9:1, which

Table 1
Respondent demographic profile.

		University A		University B		Total		Test-retest	
		n	%	*n*	%	*n*	%	*n*	%
Total records		189		71		260	100.0%	18	100%
Gender	Male	78	41.3%	27	38.0%	105	40.4%	6	33.3%
	Female	111	58.7%	43	60.6%	154	59.2%	12	66.7%
	Missing	–	0.0%	1	1.4%	1	0.4%	–	0.0%
Age band	17–19	40	21.2%	14	19.7%	54	20.8%	6	33.3%
	20–29	109	57.7%	42	59.2%	151	58.1%	7	38.9%
	30–39	14	7.4%	6	8.5%	20	7.7%	4	22.2%
	40–49	6	3.2%	4	5.6%	10	3.8%	1	5.6%
	Missing	20	10.6%	5	7.0%	25	9.6%	–	0.0%
Year	1	82	43.4%	–	0.0%	82	31.5%	13	72.2%
	2	44	23.3%	53	74.6%	97	37.3%	1	5.6%
	3	42	22.2%	18	25.4%	60	23.1%	4	22.2%
	4	21	11.1%	–	0.0%	21	8.1%	–	0.0%
Course	Paramedic	150	79.4%	71	100.0%	221	85.0%	15	83.3%
	Paramedic and Nursing	38	20.1%	–	0.0%	38	14.6%	3	16.7%
	Missing	1	0.5%	–	0.0%	1	0.4%	–	0.0%
Previous training	None	120	63.5%	49	69.0%	169	65.0%	12	66.7%
	Video	37	19.6%	11	15.5%	48	18.5%	2	11.1%
	Lecture	25	13.2%	7	9.9%	32	12.3%	3	16.7%
	Skills training	4	2.1%	4	5.6%	8	3.1%	1	5.6%
	In-depth	–	0.0%	–	0.0%	–	0.0%	–	0.0%
	Other	1	0.5%	–	0.0%	1	0.4%	–	0.0%
	Missing	2	1.1%	–	0.0%	2	0.8%	–	0.0%
Personal IPV experience	Yes	28	14.8%	15	21.1%	43	16.5%	3	16.7%
	No	153	81.0%	49	69.0%	202	77.7%	15	83.3%
	Missing	8	4.2%	7	9.9%	15	5.8%	–	0.0%
Lifetime IPV experience	Yes	69	36.5%	28	39.4%	97	37.3%	8	44.4%
	No	110	58.2%	36	50.7%	146	56.2%	10	55.6%
	Missing	10	5.3%	7	9.9%	17	6.5%	–	0.0%

Bold indicates significant finding.

was below ideal sample size though still eligible for PCA (Pett et al., 2003).

An initial analysis was run to obtain eigenvalues for each component in the data. Nine components had eigenvalues over Kaiser's criterion of 1 and in combination explained 64.23% of the variance. The scree plot demonstrated inflections that would justify retaining five factors (Tabachnick and Fidell, 2007). A Parallel Analysis was performed which showed only five factors with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (28 variables × 260 respondents) (Ledesma and Valero-Mora, 2007). Given the large sample size, the results of the parallel analysis and the convergence of the scree plot five factors were retained in the final analysis. Seven items not loading on the five factors were removed from the final solution resulting in 21 items being retained.

The five-factor solution explained a total of 57.03% of the variance, component contributions are presented in Appendix 1. To aid in the interpretation, varimax rotation was performed. The rotated solution demonstrated the presence of a complex solution, with two of the 17 items loading on multiple factors. See Appendix 1 for factor loadings after rotation.

3.2. Correlations

Spearman's rho was used to measure correlations between the subscales and Hours of Training. Actual Knowledge had no significant correlations at or above $r > 0.3$. The Perceived Knowledge and Perceived Preparation subscales demonstrated a strong significant correlation ($r = 0.77$, $p < .01$, 2 tailed). The Perceived Knowledge subscale demonstrated good significant correlations with our identified subscales Capabilities ($r = 0.366$), and Skills and Training ($r = 0.403$) as well as Hours of Training ($r = 0.352$). The Capabilities and Skills and Training scales demonstrated a weak but significant correlation ($r = 0.252$, $p < .01$, 2 tailed). See Table 2 for correlation results.

3.3. Internal Consistency

Cronbach's alpha coefficient was used as a measure of internal consistency, using reverse coded items where there was a negative loading in PCA (Pett et al., 2003). Of the subscales identified in our factor analysis, only Capabilities displayed high internal consistency ($\alpha > 0.7$), Attitudes and Alcohol and Drugs displayed moderate internal consistency ($\alpha > 0.5$), and Perceived Preparation and Perceived Knowledge displayed outstanding internal consistency ($\alpha > 0.9$) (Kline, 2015). See Table 3 for internal consistency results.

3.4. Test-retest

We used Pearson's correlation to measure test-retest reliability with the 18 participants who retook the scale. As can be seen from Table 4, Perceived Preparation and Knowledge and Actual Knowledge demonstrated strong (Cohen, 1988) significant ($p > .01$) correlations with an r value between 0.81 and 0.90, and therefore high test-retest reliability. The subscales identified by the PCA demonstrated good correlations, and therefore good reliability, with r values between 0.63 and 0.89.

4. Discussion

This study comprises the first published data on the psychometric properties of the Modified PREMIS when delivered to Australian healthcare students. Results indicate the scale did not demonstrate robust psychometric properties, and PCA on opinion items delivered a solution that was considerably different to previous results in US physicians and healthcare student cohorts (Connor et al., 2011a; Short et al., 2006). Following will be a discussion of key results and implications for future practice.

Table 2
Correlation matrix.

		Actual Knowledge	Perceived Knowledge	Perceived Perpetration	Capabilities	Skills and Training	Attitudes	Alcohol and drugs	Autonomy
	Actual Knowledge	1.000							
	Perceived Knowledge	**0.170****	1.000						
	Perceived Preparation	0.085	**0.773****	1.000					
Opinions	Capabilities	−0.081	**0.336****	**0.288****	1.000				
	Skills and Training	0.073	**0.403****	**0.368****	**0.252****	1.000			
	Attitudes	**0.299****	0.102	0.012	0.002	−0.018	1.000		
	Alcohol and Drugs	0.027	0.065	0.033	−0.002	−0.013	−0.060	1.000	
	Autonomy	0.112	**0.169****	0.035	0.104	0.082	**0.328****	−0.082	1.000
	Hours of Training	**0.131***	**0.352****	**0.236****	0.085	**0.182****	**0.155****	−0.026	**0.128***

* $p < .05$ (2 tailed).
** $p < .01$ (2 tailed).

Table 3
Cronbach alpha results by scale.

	Scale	Number of Items	Cronbach's alpha
	Perceived Preparation	10	0.95
	Perceived Knowledge	14	0.97
Opinions	Capabilities	7	0.80
	Skills and Training	4	0.49
	Attitudes	4	0.58
	Alcohol and Drugs	3	0.57
	Autonomy	3	0.48

4.1. Principal Component Analysis

Our PCA of the opinion items generated a very different outcome to previous factor analysis of the items in US nursing, dental, social worker and medical students, and of the original PREMIS delivered to US physicians (Connor et al., 2011a; Short et al., 2006). This is most likely due to several factors, including that the scale was created a decade ago, in a different country, within a different social context, and that previous validation was performed using mostly different medical populations (paramedic students have not been previously measured). Our sample comprised of approximately 60% female participants, which was consistent with the sample in Connor et al.'s study (Connor et al., 2011a), while Short et al.'s sample was 76% male (Short et al., 2006). No previous research has examined gender differences in results of the Modified PREMIS, however as women are more likely to experience IPV (World Health Organization, 2014) this may impact on their opinions and influence PCA results.

Subscales identified in this study comprised similar constructs to those identified in the original PREMIS. This indicates that items may have been interpreted differently by our participants. There are several factors that may have contributed to this.

In the Skills subscale, all items were negatively worded, potentially indicating a trend for responding to negatively worded items in a uniform manner, rather than responding to the items themselves. Additionally in this subscale, some items would have been difficult to answer without having practiced skills in the past, for example *'I do not have sufficient training to assist individuals in addressing situations of IPV'*. Future iterations of the scale may benefit from wording such items in a theoretical context.

It was noted that seven items were not retained in the PCA due to poor loadings. These items contained concepts which arguably require some prior work knowledge, such as *"paramedics do not have the knowledge to assist patients in addressing IPV"*. Future revisions may benefit from rewording such items to focus on the respondent only, or to avoid topics that students would be unlikely to have knowledge of.

As seven items were not retained, just over one fifth of items were removed, which may have a considerable impact on the usability of the scale in this population. Items not retained referred to similar constructs as found in the identified subscales. For example, one item not retained read *'Victims of abuse could leave the relationship if they wanted to'* which is very similar in context to some retained items. Potentially, such items that put complex issues into simplistic statements were difficult for students to respond to. Future revisions may benefit from examining how such items are worded and assess for comprehension in target populations.

4.2. Validity

4.2.1. Associations Between Subscales

We found that the significant correlations between the subscales identified in PCA were at best weak, and subscales that could be expected to correlate often did not, indicating there may be issues with the validity of the instrument when delivered to Australian healthcare students.

The Actual Knowledge scale had no significant correlations with other subscales, which was also found in previous similar studies (Connor et al., 2011a; Short et al., 2006). It could reasonably be expected that the Actual Knowledge subscale would positively correlate

Table 4
Test re-test results.

		Baseline mean	SD	2-week follow-up mean	SD	Mean difference	Pearson's correlation
	Perceived Preparation	2.92	1.19	2.68	1.07	−0.24	0.90**
	Actual Knowledge	20.76	5.65	25.35	5.41	2.59	0.81**
	Perceived Knowledge	2.73	1.13	2.75	1.07	0.02	0.82**
Opinions	Capabilities	4.02	0.63	4.02	0.55	0.0	0.89**
	Skills and Training	3.04	1.08	2.83	1.09	−0.21	0.68**
	Attitudes	5.52	0.83	5.78	0.95	0.26	0.71**
	Alcohol/Drugs	4.23	0.43	4.00	0.77	−0.23	0.63**
	Autonomy	4.96	0.69	4.70	0.55	−0.26	0.70**

** $p < .01$.

with Hours of Training yet this did not occur. It is known that the training which the participants undertook, watching a video or attending a lecture, are often found to be ineffective (Sawyer et al., 2016) and potentially the reason for a lack of correlation was that the training did not actually improve the students' knowledge. Alternatively, it is possible that the lack of correlation was due to some of the multiple choice questions being easily guessed. It is also possible that due to the scale being created a decade ago participants are more aware of IPV and its manifestations, particularly in Australia where recently there has been a dramatic increase in media attention given to family violence and women's rights (State of Victoria, n.d.).

The Perceived Knowledge and Perceived Preparation subscales both correlated strongly together, which again was found by previous studies (Connor et al., 2011a; Short et al., 2006). As many items across these subscales deal with similar constructs, they could potentially be combined, and future revisions may benefit from more clearly defining terms such as *preparedness*.

A potential cause for the lack of correlation between Actual Knowledge, Perceived Preparation and Perceived Knowledge subscales could lay in the lack of consistency between items. For example, there are three items in each of the Perceived Preparation and Perceived Knowledge scales which deal with state reporting requirements, however there is no item which measures this in the Actual Knowledge subscale.

4.3. Reliability

4.3.1. Test-retest

Analysis using Pearson's correlation showed that the instrument demonstrated strong to very strong reliability in all scales when delivered 2 weeks apart. This provides good evidence of its reliability over time. It may be beneficial to retest participants over longer time periods to examine for how long they retain the necessary skills and knowledge, though this was beyond the scope of this study.

4.3.2. Internal Consistency

The internal consistency of the Modified PREMIS was excellent for Perceived Preparation and Perceived Knowledge subscales, but lower for the identified opinion subscales. It is noted however that subscales scoring lowest also had the lowest number of items, which may have impacted results (Pett et al., 2003).

As discussed above, Perceived Preparation and Perceived Knowledge may both be measuring a single underlying construct, and further revision could potentially remove redundant items. Potential flaws in the opinion items have been discussed above, and additionally with respect to internal consistency, we note that the scale was

originally intended for practicing physicians and was not intended for students. The reliability of items reworded to be used with non-practicing students may be an issue. Attempts to revise the Modified PREMIS may benefit from creating items specifically aimed at student groups.

4.4. Implications for Future Practice

Results from this study indicate that the Modified PREMIS did not demonstrate robust psychometric properties in an Australia healthcare student cohort, and individual items may require revision before further use in these populations. It is recommended that the scale should be revised and updated for Australian healthcare student populations. Potential revisions have been discussed throughout this paper, and additionally revisions may be benefit from reference to the new international guidelines (World Health Organization, 2013a), which were disseminated after this tool was originally created. Pending a revision and further psychometric analysis, the Modified PREMIS may be a useful instrument to assess educational interventions delivered to healthcare students.

4.5. Limitations

This study was limited by its relatively small sample size, the lack of a wider variety of healthcare student groups, and from not carrying out a review of the content validity in light of recent guidelines. Additionally, this study was limited by the exclusion of some enrolled students who did not attend the lecture which may lead to non-responder bias. Due to our modifications from the Modified PREMIS, we could not utilise the legal requirements scale.

5. Conclusions

This study found that the Modified PREMIS did not demonstrate robust psychometric properties when delivered to Australian healthcare students and should be revised before further use. The instrument may benefit from revisions based on the recently released clinical guidelines to ensure it reflects the required knowledge and preparedness to recognise and refer IPV patients. Efforts to design and measure the psychometric properties of a revised instrument should be prioritised as it is essential that robust measures are made available to ensure participants of educational interventions are learning the necessary KAP. The use of robust scales to guide the development of effective evidence based educational packages may be critical to the healthcare sector's ability to adequately support IPV patients.

Appendix A. Rotated component matrix from PCA

Identified scale	Item	Capabilities	Skills	Attitudes	Alcohol/drugs	Autonomy	h_2	r_{it}	Mean	SD
Capabilities	I am able to gather the necessary information to identify IPV as the underlying cause of patient injuries (e.g., bruises, fractures, etc.)	0.720					0.536	0.54	3.88	1.18
	I can match therapeutic interventions to an IPV patient's readiness to change	0.697					0.554	0.56	3.38	1.23
	I am able to gather the necessary information to identify IPV as the underlying cause of patient illnesses (e.g., depression, migraines)	0.694					0.637	0.60	3.55	1.17
	I am capable of identifying IPV without asking my patient about it	−0.688					0.565	0.59	4.48	1.16
	I can make appropriate referrals to services within the community for IPV victims	0.677					0.604	0.50	4.15	1.35
	I can recognise victims of IPV by the way they behave	−0.631					0.652	0.61	4.45	1.22
	I feel comfortable discussing IPV with my patients	0.419				−0.404	0.619	0.35	3.90	1.29

		F1	F2	F3	F4	F5	h₂	r_it	Mean	SD
Skills and Tr- aining	I don't have the necessary skills to discuss abuse with an IPV victim who is from a different cultural/ethnic background	0.904					0.828	0.66	3.48	1.44
	I don't have the necessary skills to discuss abuse with an IPV victim who is male	0.904					0.829	0.70	3.63	1.45
	I don't have the necessary skills to discuss abuse with an IPV victim who is female	0.896					0.840	0.74	3.83	1.45
	I do not have sufficient training to assist individuals in addressing situations of IPV	0.603					0.662	−0.48	2.84	1.38
Attitudes	Women who choose to step out of traditional roles are a major cause of IPV		0.707				0.560	0.48	5.57	1.39
	If victims of abuse remain in the relationship after repeated episodes of violence, they must accept responsibility for that violence		0.680				0.545	0.41	5.97	1.31
	Paramedics do not have the time to assist patients in addressing IPV		0.647				0.631	0.37	5.75	1.24
	I understand why IPV victims do not always comply with para-medic recommendations		0.497				0.616	0.19	4.84	1.14
Alcohol and Drugs	Use of alcohol or other drugs is related to IPV victimization			0.793			0.664	0.42	4.46	1.13
	Alcohol abuse is a leading cause of IPV			−0.668			0.679	0.35	3.70	1.05
	Patients who abuse alcohol or other drugs are likely to have a history of IPV			0.666			0.511	0.37	4.14	1.00
Autonomy	Victims of abuse have the right to make their own decisions about whether paramedics should intervene				−0.764		0.614	0.29	4.57	1.02
	If a patient refuses to discuss the abuse, paramedics can only treat the patient's injuries				0.595		0.651	0.31	3.87	1.10
	If an IPV victim does not acknowledge the abuse, there is very little that I can do to help		0.455		0.488		0.574	0.30	4.84	1.21
Eigen		21.391	12.611	8.991	7.251	6.787				
alpha		0.80	0.49	0.58	0.57	0.48				

Notes: h_2 — Communalities; r_{it} — Item total correlation; SD — standard deviation.

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