



## Development and validation of the Technology-Facilitated Sexual Violence Myth Acceptance Scale

Kate Gray<sup>1</sup>, María Aranda<sup>1</sup>, Sergio Domínguez-Lara<sup>2</sup>, and Andy Rick Sánchez-Villena<sup>3</sup>

<sup>1</sup> University of Jaén, Department of Psychology, Social Psychology, Spain

<sup>2</sup> Instituto de Investigación FCCCTP, Universidad de San Martín de Porres, Lima, Perú

<sup>3</sup> Universidad Señor de Sipán, Lambayeque, Perú

**Título:** Desarrollo y validación de la Escala de Aceptación de Mitos sobre la Violencia Sexual Facilitada por la Tecnología.

**Resumen:** La violencia sexual facilitada por la tecnología (VSFT) es una forma emergente de violencia de género que abarca comportamientos como el abuso basado en imágenes, el acoso en línea y la coacción. Si bien la investigación sobre la prevalencia y el impacto de la VSFT ha aumentado, hay una falta de medidas validadas que evalúen las actitudes hacia estos comportamientos. Este estudio tuvo como objetivo desarrollar y validar la Escala de Aceptación de Mitos sobre la Violencia Sexual Facilitada por la Tecnología (EAMVSFT). Una revisión exhaustiva de la literatura permitió la generación de ítems, seguida de dos evaluaciones de paneles de expertos y un estudio piloto para establecer la validez de contenido. Un total de 433 participantes completaron la escala inicial de 47 ítems, que se sometió a análisis exploratorios y confirmatorios de factores, y un análisis de redes asociativas. El modelo bifactorial mostró el mejor ajuste; sin embargo, los índices sugirieron una estructura esencialmente unidimensional, dando como resultado una escala final de 12 ítems para medir la aceptación de mitos sobre la VSFT. La EAMVSFT demostró una fuerte consistencia interna ( $\alpha = .83$ ), validez de constructo e invarianza de la medición entre los grupos demográficos estudiados. La validez convergente se apoyó en las correlaciones significativas con las medidas existentes de aceptación de mitos de violencia sexual. Esta escala proporciona una herramienta psicométricamente sólida para evaluar las actitudes hacia la VSFT, con implicaciones para la investigación, la prevención y las estrategias de intervención.

**Palabras clave:** Violencia sexual facilitada por la tecnología. Aceptación de mitos. Desarrollo de escala. Validación. Violencia de género. Acoso en línea.

**Abstract:** Technology-facilitated sexual violence (TFSV) is an emerging form of gender-based violence that encompasses behaviours such as image-based abuse, online harassment, and coercion. While research on the prevalence and impact of TFSV has grown, there is a lack of validated measures assessing attitudes toward these behaviours. This study aimed to develop and validate the Technology-Facilitated Sexual Violence Myth Acceptance (TFSVMA) scale. A systematic review of the literature informed item generation, followed by expert panel evaluations and a pilot study to establish content validity. A total of 433 participants completed the initial 47-item scale, which underwent exploratory and confirmatory factor and network analyses. A bifactor model yielded the best fit; however indices supported essential unidimensionality, resulting in a final 12-item scale measuring TFSV myth acceptance (TFSVMA). The TFSVMA demonstrated strong internal consistency ( $\alpha = .83$ ), construct validity, and measurement invariance across demographic groups. Convergent validity was supported through correlations with existing measures of sexual violence myth acceptance. This scale provides a psychometrically sound tool for assessing attitudes toward TFSV, with implications for research, prevention, and intervention strategies.

**Keywords:** Technology-facilitated sexual violence. Myth acceptance. Scale development. Validation. Gender-based violence. Online harassment.

### Introduction

Technology-Facilitated Sexual Violence (TFSV) refers to the misuse of information and communication technologies (ICTs) to perpetrate harm of a sexual nature (De Araújo et al., 2022; Flynn et al., 2021). Behaviours include image-based abuse (e.g., non-consensual image sharing, deepfake pornography), coercion (e.g., sextortion), cyber flashing, doxxing, online harassment (e.g., trolling, impersonation), and threats. These behaviours often overlap and are increasingly understood as part of a broader, evolving construct. Research documenting poly-victimisation and poly-perpetration further supports treating TFSV as a comprehensive construct (Brown & Hegarty, 2021; Dunn,

2020; Flynn et al., 2022a; Flynn et al., 2022c; Gámez-Guadix et al., 2022; Koukopoulos et al., 2025; Powell et al., 2024; Rindestig et al., 2025; Sheikh & Rogers, 2024).

TFSV is a rapidly growing global concern. Its invasiveness and the speed of digital communication often outpace legal and preventative responses (Fisico & Harkins, 2021). Public awareness has improved through media and legislative developments (Henry & Powell, 2016; Rackley et al., 2021) yet underreporting persists. Victim-blaming and minimisation remain common (Chatzysymeonidis & Pina, 2024; Zvi & Shechory-Bitton, 2020), indicating the urgent need to examine attitudes and cognitive mechanisms that influence both perpetration and societal acceptance.

### Prevalence and Perception

With digital technology embedded in everyday life, TFSV prevalence is high. A global review estimated a 30.6%

\* Correspondence address [Dirección para correspondencia]:

Kate Gray, Universidad de Jaén (Spain). E-mail: [kg000012@red.ujaen.es](mailto:kg000012@red.ujaen.es)

(Article received: 12-05-2025; revised: 30-09-2025; 19-11-2025)

victimisation rate (Benítez-Hidalgo et al., 2024). Like other forms of sexual violence, TFSV is widely considered as a form of gendered-based violence. Male perpetrators and female victim-survivors are overrepresented, and where gender parity in victimisation exists, women tend to experience more severe impacts (eSafety Commissioner, 2023; Gámez-Guadix et al., 2022; Zvi, 2022). However, intersectional patterns are increasingly evident. LGBTQIA+ individuals experience disproportionate risks, distinct forms of abuse, and heightened mental health impacts (Gámez-Guadix et al., 2022). In Spain, for example, cisgender men reported higher rates of sexual orientation-based violence than cisgender women, and LGBTQIA+ participants overall reported greater victimisation (Martínez-Bacaicoa et al., 2024). These findings suggest that TFSV not only reflects gendered power dynamics but also reinforces broader systems of marginalisation rooted in gender norms, sexuality, and identity.

A bidirectional relationship between victimisation and perpetration has been observed in several studies (e.g., Martínez-Bacaicoa et al., 2024; Powell et al., 2022; Seewald et al., 2022; Vllora et al., 2019; Walker et al., 2021). This aligns with social learning theory, which posits that exposure to certain relationship behaviours can normalise and perpetuate them. However, research on the directionality and contexts of this dynamic, such as whether it occurs within the same relationship, is still limited (Sparks et al., 2023; Vllora et al., 2019).

High rates of certain TFSV behaviours may also contribute to their normalisation. Misperceptions of peer behaviour can lead individuals to view these acts as socially acceptable or benign. Social norms, environmental contexts, and perceived prevalence heavily influence how problematic these behaviours are perceived to be (Martínez-Bacaicoa et al., 2023; Sparks et al., 2023). For example, on some gay male social networking platforms, the unsolicited exchange of explicit images is often seen as normalised, even expected (Tziallas, 2015). Similarly, male adolescents in Ringrose et al.'s (2021) study viewed non-consensual image sharing as a routine part of digital sexual expression, despite recognising its harms. These examples suggest that a lack of consequences and trivialisation can entrench TFSV as a perceived social norm, even when individuals do not personally condone it (Johnson & Johnson, 2021).

Such attitudes extend to bystander perceptions, which significantly shape institutional responses, including those by law enforcement. Police often serve as first responders to TFSV cases and have substantial influence over victim outcomes (Chatzisyneonidis & Pina, 2024; Cross et al., 2021). Yet evidence suggests gaps in police knowledge and training on TFSV, as well as tendencies toward minimisation and victim-blaming (Flynn et al., 2022a; Henry et al., 2018). These limitations contribute to underreporting, inadequate investigations, and insufficient resource allocation, ultimately compromising victims' access to justice and safety (Woodlock et al., 2020; Zvi & Shechory-Bitton, 2020).

## TFSV Assessment

Despite growing research interest, there are still notable gaps in our understanding of attitudes toward TFSV. Most existing research relies on qualitative methods, structured surveys, or hypothetical scenarios (e.g., Cross et al., 2021; Flynn et al., 2022a; Zvi & Shechory-Bitton, 2020), with limited use of validated psychometric tools. To date, there is no comprehensive, validated scale that assesses attitudes towards TFSV as an overarching construct.

Existing measures tend to focus narrowly on specific behaviours, such as non-consensual image sharing (Revenge Porn Proclivity Scale; Pina et al., 2017), cyberstalking (Silva Santos et al., 2023) or violence against women (Vizcaíno-Cuenca et al. 2025), or are restricted to intimate partner or dating contexts, such as the Technology-Facilitated Abuse in Relationships Scale (Brown & Hegarty, 2021), Cyber Dating Abuse Questionnaire (Borrajó & Calvete, 2015), and the Partner Cyber Abuse Questionnaire (Wolford-Clevenger et al., 2016). While these tools are valuable within their respective domains, they remain limited in scope, overlooking behaviours which occur outside intimate dyadic contexts and failing to capture the broader cultural and attitudinal dimensions of TFSV. Furthermore, measures that are gender-specific or grounded in heteronormative relationship frameworks neglect the diversity of victimisation and perpetration patterns, particularly those affecting men and LGBTQIA+ individuals (Gámez-Guadix et al., 2022; Martínez-Bacaicoa et al., 2024; Powell et al., 2020). Given evidence of poly-victimisation, poly-perpetration, and the involvement of friends, acquaintances, and strangers in TFSV (Powell et al., 2024), there is a clear need for comprehensive, inclusive approach that conceptualises and assesses TFSV as a multifaceted phenomenon spanning diverse behaviours, relationships, and populations.

In addition, attitudinal research on TFSV is rarely conducted with general population samples. Existing studies primarily examine the perspectives of victims, perpetrators, or key stakeholders such as police and service providers (e.g., Champion et al., 2022; Flynn et al., 2022a). While these are important perspectives, understanding general population attitudes are vital for capturing the cultural norms and beliefs that underpin the acceptance or rejection of TFSV myths.

Collectively, these gaps highlight the need for further research efforts to develop and validate instruments that can accurately assess perceptions and attitudes toward TFSV. A comprehensive attitudinal scale would enhance our ability to address this complex issue by capturing the full scope of societal views and informing effective prevention and intervention strategies.

## The Present Study

This study aimed to address these critical gaps by developing and validating a novel psychometric scale to

assess TFSV myth acceptance. Our goal was to create a reliable and comprehensive instrument that captures attitudes toward a broad range of TFSV behaviours and contexts.

Using a multi-phase design, we generated an initial item pool, conducted expert reviews and pilot testing, and validated the scale with general population and police samples in Australia. By assessing both lay and professional perspectives, this research seeks to deepen our understanding of the cognitive mechanisms that contribute to the normalisation and perpetuation of TFSV and ultimately inform targeted prevention and intervention strategies.

Ethical approval for all phases was obtained from the University of Jaén Research Ethics Committee. The project was conducted in accordance with the Universities code of good practice (University of Jaén, 2021). All participants were aged 18 years and older and provided informed consent after receiving clear information about the study aims, procedures, and the sensitive nature of the items. To minimise potential distress, content warnings were provided, and participants were informed of their right to withdraw without penalty and debriefed with details of relevant support services. Confidentiality and secure data management were maintained across all study phases.

### Phase 1: TFSVMA Content Development and Validity

An initial item pool was developed based on a targeted literature review of recent research on TFSV. Sources included exploratory and qualitative studies investigating the experiences, attitudes, and beliefs of victims and stakeholders (e.g. Anderson & Wood; 2021; Bailey et al., 2021; Flynn et al., 2021; Henry et al., 2018). The behaviours identified in these studies as constituting TFSV, such as doxxing, image-based abuse, online harassment, and perceptions of severity, were reviewed to ensure comprehensive coverage of relevant dimensions. Constructs primarily related to cyberstalking, monitoring, or controlling behaviours were excluded due to the absence of an explicitly sexual component, placing them outside the scope of the present scale.

In addition, existing Likert-style scales measuring sexual violence myth acceptance were reviewed for content relevance and adaptability. These included the Acceptance of Modern Myths About Sexual Aggression Scale (AMMSA-21; Bohner et al., 2022), the Illinois Rape Myth Acceptance Scale (IRMA; Payne et al., 1999), and the Sexual Image-Based Abuse Myth Acceptance Scale (SIAMA; Powell et al., 2019). Item structure and wording from these scales helped inform the development of new items.

Drawing on these sources, individual and collaborative brainstorming sessions among the research team generated an initial pool of 91 candidate items. To refine the scale, a multi-phase approach was adopted. Phase 1 focused on content validation through expert panel review and pilot

testing to assess item clarity, relevance, and comprehensibility, and to guide initial item reduction. Phase 2 involved statistical analyses to refine the item pool further and to assess the scale's factor structure, reliability, and validity.

#### Phase 1a: Expert Panel Analysis: Content Validity

An evaluation by experts was undertaken to assist in determining conceptual item representation (Boateng et al., 2018). Cognitive interviews were utilised to provide face and content validity of the instrument. Two separate panels were conducted, pre and post pilot study (see phase 1b).

#### Method

**Participants.** The expert panels consisted of five experts within the field of psychology, and sexual and/or gendered violence. They were recruited through the researchers' networks.

**Materials.** The panel of experts received an online survey containing the operational definition of the construct (TFSV), the dimensions (doxxing, image-based abuse, online sexual harassment, and perception of severity and approach), and the items proposed for the scale. They were asked to examine coherence (the degree which the item has a logical relationship with the construct), clarity (the items' ease of comprehensiveness), relevance (the items' importance in explaining the construct), and sufficiency (the degree the dimension is represented by the items within). This was assessed by rating each category from 1 (Very Poor) to 4 (Very Good), indicating that the higher endorsement, the more pertinent and/or relevant and/or clear the item was considered to assess the construct and how sufficiently the dimension was represented by the items. The opportunity for comments or further feedback for each item, dimension, and the instrument was also provided.

**Procedure.** Experts were sent an email invitation which outlined the purpose and objectives of the study and their participation, including the number of the scale items within the pool. They were provided with preliminary information around their participation and a link to the questionnaire should they choose to accept the invitation. The online questionnaire provided more detailed participation information and ethical guidelines.

**Data Analysis.** Calculations were conducted manually (Aiken, 1980; Madadzadeh & Bahariniya, 2023). Both item (I-CVI) and scale (S-CVI) content validity indexes were calculated with a threshold of .8 or higher for judgement of content validity (Madadzadeh & Bahariniya, 2023), which, in conjunction with the expert's qualitative feedback, informed items for modification or removal.

## Results

Preliminary screening indicated minimal data (< 5% across items), which were judged to be random. Accordingly, all cases were retained for analysis. The results of the first panel in which 91 items were evaluated indicated that all items presented as relevant (S-CVI = 1), and majority of items coherent (S-CVI = .97), however 61 items were assessed as unclear (S-CVI = .67). The items were individually reviewed, with particular attention given to those indicated as unclear ensuring that any ambiguities in understanding or phrasing were addressed. This resulted in eight items being removed, six new items added, and 15 modifications to phrasing.

The results of the second panel in which 89 items were assessed indicated 59 items as adequately relevant and clear, and 62 items coherent (I-CVI  $\geq$  1). However, the S-CVI was below the threshold at .67. Items which didn't meet the threshold were re-evaluated based on qualitative data provided by the experts and theoretical decision making by the researchers in addition to the pilot analysis results detailed below, resulting in the removal of 42 items.

### Phase 1b: Pilot Analysis: Items' comprehensibility

A pilot analysis was conducted to examine face validity and comprehensibility of items within the target population, in addition to further content validation (Carpenter, 2018).

#### Method

**Participants.** A total of 19 participants, 63% female, aged between 21 and 57 ( $M = 33.53$ ,  $SD = 9.33$ ) were recruited via social media and online survey distribution platforms. Majority (84.2%) identified as being heterosexual, and in a relationship or married (68.4%).

**Materials.** The 89-item Technology-Facilitated Sexual Violence Myth Acceptance (TFSVMA) scale was administered, followed by a randomised selection of three items to provide a judgement of comprehension, clarity, and relevance.

**Procedure.** Participants responded to an online flyer advertising the study in which an anonymous Qualtrics link was used to access the study. Participants received information about the study, its purpose, what to expect, ethical guidelines including their rights to withdraw without consequence. All participants provided informed consent before participation. Firstly, participants were presented with demographic questions regarding age, gender, occupation, ethnicity, sexual orientation, and relationship status. They were then given the 89-item TFSVMA scale and instructed to rate their level of acceptance to each item from 1 (strongly disagree) to 5 (strongly agree). Participants were randomly presented, via the Qualtrics randomiser function, with three items drawn from the full item pool and asked to rate each from clarity and relevance on a scale from 1 (very

clear/relevant) to 5 (very unclear/irrelevant). They were then shown another three randomly selected items and asked to describe, in their own words, what they understood each item to mean to assess comprehension. A debrief after participation was also provided.

**Data Analysis.** Preliminary and descriptive analyses were conducted to evaluate statistical assumptions and identify items that maximize variance and correlate strongly with the latent variable. Items were retained if they met the following criteria: weighted average score  $> 1.5$ , standard deviation  $> 1$ , skewness and kurtosis within  $\pm 2$ , item-total correlation  $> .2$ , and no floor or ceiling effects. Reliability was assessed using Cronbach's Alpha to estimate internal consistency. Inter-item correlations were examined through correlation coefficients and inspection of correlation matrices. Finally, cognitive interviews, a technique involving asking participants to explain their thought processes when providing answers, were conducted to assess the clarity, coherence, and suitability of the items and scale administration (Boateng et al., 2018).

## Results

Missing data was assessed as generally random. Complete data was available for 19 participants, with six cases removed with missing data over 5%. A preliminary analysis was conducted to examine statistical assumptions and assess item performance. The item analysis revealed two items with zero variance, which were subsequently removed from the scale. The weighted average scores for the remaining items ranged from 1.05 to 4.11 ( $SD = 0.23$  to 1.70), highlighting items that fell below acceptable criteria. Skewness and kurtosis values also indicated items that deviated from the acceptable range of  $\pm 2$ , with skewness ranging from -4.36 to 4.36 ( $SE = 0.52$ ) and kurtosis values ranging from -1.86 to 19. ( $SE = 1.01$ ). These results suggest strong deviations from symmetry and normality, with both negative and positive skew, as well as leptokurtic distributions. Significant Shapiro-Wilk tests for the majority of items further indicated violations of normality and unimodality.

Internal consistency, assessed using Cronbach's alpha, indicated a good level of reliability for the overall scale ( $\alpha = .85$ ). Corrected item-total correlations were computed to assess the contribution of each item to the overall scale. These values ranged from -0.76 to 0.76, with 35 items exhibiting weak correlations ( $r < 0.20$ ), suggesting limited contribution to the total score. Inter-item correlations ranged from -1 to 1, indicating very high correlations between some items, which may suggest issues with multicollinearity.

Cognitive interviews confirmed that participants found the scale items to be clear and understandable, with minimal ambiguity. Minor revisions were made to 12 items to improve coherence and ensure cultural and linguistic appropriateness.

Overall, 42 items were removed based on the compliance criteria, item statistics, expert review findings, and the researcher's theoretical decisions.

### Discussion

Phase 1 achieved substantial refinement of the TFSV myth acceptance scale, reducing the pool of items from 91 to 47 while establishing initial content validity. Expert feedback and cognitive interviews confirmed the conceptual clarity and cultural relevance, leading to targeted revisions (Boateng et al., 2018; Clark & Watson, 1995). Although internal consistency was acceptable ( $\alpha = .85$ ), weak item-total correlations and multicollinearity indicated redundancy, consistent with the inclusion of similarly worded items for phrasing optimisation. The observed non-normality and skewed responses likely reflected both sample size limitations and the sensitivity of sexual violence attitudes (Brown & Hegarty, 2021; Ryan, 2013). Overall, this phase provided a strong foundation for item refinement, ensuring that subsequent testing can focus on improving discriminant capacity and psychometric robustness within larger, more diverse samples.

## Phase 2: Scale Development and Evaluation

The goal of this phase was to further refine the items and develop a final, robust, and workable scale. This phase was split into two sections, utilising the same initial participant sample group and procedure. Phase 2a examines the latent constructs, dimensionality and item validity, while phase 2b examines the reliability and validity of the final scale.

### Method

#### Participants

Participants were recruited through online social media and survey platforms totalling 433 participants after missing data removal. Participants' ages ranged between 18 and 73 ( $M = 37.36$ ,  $SD = 11.58$ ). In terms of gender, 53.8% described themselves as male, 43.9% female, 1.6% non-binary, and 0.5% transgender male. The majority (67.7%) reported being married or in a relationship, with 26.3% single, 5.7% separated, divorced, or widowed. Regarding sexual orientation, 81.5% identified as heterosexual, 9% as bisexual, 6.7% as gay or lesbian, 1.4% as pansexual, 0.9% as asexual, and 0.2% selected "other."

Participants all spoke English. Most participants (63.7%) identified as White or European, while 11.5% as Australian or New Zealander. An additional 23.2% reported belonging to other ethnic groups including Black, African, Asian, Biracial, Hispanic, North American, Caribbean, and Middle Eastern.

Participants worked in a variety of professional sectors. Most commonly law enforcement, legal, and government

services (21.9%); healthcare and social services (15.7%), and education and academia (13.6%). Other fields included skilled trades (7.8%), business, consulting, and management (6.2%), and accounting and finance (5.3%). Additionally, participants were represented in science research (5.1%), administration and human resources (4.4%), engineering and technology (4.2%), customer service and hospitality (3.5%), creative and media industries (2.5%), marketing and communications (1.4%), and manufacturing, logistics, and transportation (0.9%). A further 6% were not working.

### Materials

**Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960).** Social desirability tendencies were assessed using the 13-item Marlowe-Crowne Social Desirability Scale – Short Form (Reynolds, 1982). Participants responded either true (= 1) or false (= 2) to items, including "I am sometimes irritated by people who ask favours of me". Items 5, 7, 9, 10, 13, were reverse coded. Scores were summed, with higher scores indicating social desirability tendencies. Internal consistency reliability was acceptable ( $\alpha = .75$ ) and in line with Reynolds (1982).

**Technology-Facilitated Sexual Violence Myth Acceptance (TFSVMA) scale.** The 47-item TFSVMA scale was administered to measure the attitudes of TFSV (see appendices). Participants responded along a 7-point scale from 1 strongly disagree to 7 strongly agree. Item scores were summed with higher scores indicating higher endorsement of tech-facilitated sexual violence myth acceptance. Internal consistency for the 47-items was excellent ( $\alpha = .92$ ).

**Acceptance of Modern Myths about Sexual Aggression scale (AMMSA-21, Bohner et al., 2022).** The AMMSA-21 is a 21-item unidimensional scale measuring attitudes towards contemporary sexual aggression. An example item is "Men must always be on guard so as not to be accused of sexual harassment". Response scales went from 1 strongly disagree to 7 strongly agree, and participant scores were the mean of the items, with higher scores indicating higher endorsement of sexual aggression myths. Internal reliability was excellent ( $\alpha = .94$ ) and consistent with Bohner et al. (2022).

**Sexual Image-Based Abuse Myth Acceptance Scale (SIAMA, Powell et al., 2019).** This scale consists of two factors, victim blame (6 items) and minimisation/excusing of harm (12 items), measure of attitudes towards sexual image-based abuse. Items include "A woman shouldn't get upset if her partner sends nude pics of her to others" (Minimize/excuse) and "People should know better than to take nude selfies in the first place, even if they never send them to anyone" (Blame). Scores are the sum of items within the scale and can produce factor or overall scale scores. Items were rated on a 7-point Likert scale where 1 indicates *strongly disagree*. Greater image-based sexual abuse victim blaming, and harm minimising/excusing is indicated by

higher scores. Internal consistencies for the total scale and subscales were all above  $\alpha = .88$ , consistent with Powell et al. (2019).

#### *Procedure*

Participants were recruited through online “call for participants” advertisements which were circulated among social media platforms, specific organisations within Australian policing services, and a sampling survey tool (Cloud Research). Involvement was voluntary, however incentives for participation included a prize draw or a small token payment for their contribution. An anonymous Qualtrics survey link was provided for access to the study. Participants completed the same demographic questions as in phase 1. They were then presented with the scales above in the listed order. Participants were presented with a debriefing after participation.

#### **Phase 2a: Scale Evaluation**

##### *Data Analysis*

**Factor Analysis.** The factor-analytic procedures were run with Mplus v. 8.4 software (Muthén & Muthén, 1998-2019), while the indices associated with the bifactor model were calculated independently (Domínguez-Lara & Rodríguez, 2017).

The presence of multivariate outliers was preliminarily assessed using the Mahalanobis distance. Cases with statistically significant p-values ( $< .001$ ) were eliminated. Univariate normality was assessed with skewness ( $< 2$ ; Finney & DiStefano, 2006) and kurtosis ( $< 7$ ; Finney & DiStefano, 2006) and multivariate normality was analysed with the multivariate kurtosis coefficient ( $G2 < 70$ ; Rodríguez & Ruiz, 2008).

Subsequently, measurement models were estimated with the weighted least square mean and variance adjusted (WLSMV) method. Two models were analysed. The first is the proposal based on the theoretical review carried out in the research (oblique four-factor model) and a bifactor model that considers the four specific factors (doxxing, image-based abuse and harassment, online sexual harassment, and perceptions of severity) and the presence of a general factor (GF) that explains the variability of the items when there are high inter-factor correlations (Rodríguez et al., 2016).

Measurement models were evaluated using both general and specific fit criteria. Overall model fit was examined through the Comparative Fit Index ( $CFI > .90$ ; McDonald & Ho, 2002), Standardized Root Mean Square Residual (SRMR  $< .08$ ; Hu & Bentler, 1999), and Root Mean Square Error of Approximation (RMSEA  $< .08$ ; Browne & Cudeck, 1992). Model specification was further assessed by inspecting potential misspecifications and correlated residuals (Domínguez-Lara & Merino-Soto, 2018; Saris et al., 2009).

Factor loadings greater than .50 were considered acceptable (Domínguez-Lara, 2018), and inter-factor correlations above .80 were taken to indicate redundancy (Brown, 2015). For the bifactor model, the strength of the general factor was evaluated using omega hierarchical ( $\omega_H > .70$ ; Zinbarg et al., 2006) and explained common variance (ECV  $> .60$ ; Flores-Kanter et al., 2018; Rodríguez et al., 2016).

In the instrument debugging process, and due to the multidimensional nature of the construct according to the established theoretical framework, the final abridged version was configured considering the three items with the highest factor loadings in each specific factor, as these would explain relevant variance of the specific construct beyond the presence of the GF.

The  $\alpha$  coefficient ( $> .70$ ; Ponterotto & Charter, 2009) was used for the reliability of the scores, and the  $\omega$  coefficient ( $> .70$ ; Hunsley & Mash, 2008) was used for construct reliability.

**Network analysis.** Psychometric analyses from the network approach were performed with the R software and the EGAnet, Bootnet, qgraph, igraph and psychometrics packages.

From the network approach, an exploratory analysis of graphs was performed with the EGAnet package in the R software (Golino et al., 2020) using the glasso estimator and the louvain algorithm to detect the number of dimensions; this combination has shown good accuracy in identifying communities of items (Christensen & Golino, 2021a). In addition, network loads were calculated, the interpretation of which is .15 is low; .25 moderate and .35 large (Christensen & Golino, 2021b). Next, stability at the level of the network structure and items was analysed through a Bootstrap with 500 iterations (Christensen & Golino, 2021a). As for reliability, it was demonstrated through structural consistency, for which it was taken into account that if the values exceed .70, it is concluded in favour of stability; this implies that it is expected that 70% of the time the dimensions have been replicated and that 70% of the time the items have belonged to the corresponding dimension (Christensen & Golino, 2021a).

A network analysis was then performed. First, the general network was estimated using the bootnet package (Epskamp, 2020) with the ggmModSelect estimator together with non-regularized partial correlations, which control the relationships in the presence of third variables in order to avoid spurious correlations (Epskamp & Fried, 2018). We worked with Spearman correlation matrices due to the ordinality of the items (Isvoranu & Epskamp, 2023). The network was represented with the Fruchterman-Reingold algorithm, which groups the nodes with the greatest interconnectivity, and the “qgraph packet” was used (Epskamp et al., 2012). Then, centrality was calculated with the strength index, because it is the most optimal in the presence of purely direct or indirect correlations and has proven to be more stable than other indices such as closeness and betweenness (Robinaugh et al., 2016). The

node with the highest centrality would indicate that it is more relevant in the sense that it has more and better interconnections than the others.

The stability and accuracy of the network was calculated using Bootstrap with 1000 resamplings. The first refers to the replication of interconnections and to interpret it you must see the overlap in the trend lines of the graph obtained. In terms of stability, the stability coefficient is intended to exceed .50 (Epskamp et al., 2018).

Finally, internal consistency was confirmed through latent networks, with the psychometrics library (Epskamp, 2021) using the DWLS estimator and goodness-of-fit indices were observed with the previously described criteria. Then, in order to determine the validity in relation to other variables, a latent network model was created with the AMMSA and SIAMA scale to know the correlation between the main variable, the acceptance of myths about sexual

assault and the acceptance of myths about image-based harassment. To interpret the effect sizes of the correlations, Cohen's (1988) recommendation was established where  $r > .10$  is a low correlation,  $r > .30$  is moderate, and  $r > .50$  is large.

## Results

Missing data was examined prior to analysis. Participants with substantial omissions (i.e. > 50% of responses missing) were removed from the dataset, reducing the sample by 59 to the final 433.

**Validity Evidence Based on Internal Structure.** The preliminary analysis indicated that although most of the items adequately comply with univariate normality, this is not the case in some instances (e.g., item 5) (Table 1), as with multivariate normality ( $G2 = 615.404$ ).

**Table 1**  
*Descriptive statistics of the items.*

Item	<i>M</i>	<i>SD</i>	g1	g2	Item	<i>M</i>	<i>SD</i>	g1	g2
1	1.901	1.293	1.643	2.168	25	1.958	1.303	1.245	0.518
2	1.524	0.969	2.527	7.573	26	1.536	0.942	2.247	5.400
3	2.702	1.598	0.817	-0.219	27	1.358	0.781	2.822	9.327
4	1.598	1.120	2.706	8.381	28	4.219	1.700	-0.241	-0.943
5	1.356	0.807	3.119	11.675	29	2.774	1.514	0.718	-0.286
6	2.016	1.290	1.432	1.695	30	1.986	1.157	1.235	1.070
7	1.360	0.836	2.874	8.578	31	2.090	1.402	1.286	0.839
8	1.760	1.115	1.653	2.449	32	3.788	1.816	-0.173	-1.141
9	2.229	1.450	1.038	-0.084	33	3.423	1.662	0.039	-1.061
10	1.508	0.965	2.299	5.203	34	2.697	1.536	0.729	-0.376
11	2.018	1.291	1.341	1.100	35	1.594	0.883	1.926	4.843
12	1.774	1.225	2.233	5.698	36	1.448	0.857	2.659	8.483
13	2.206	1.571	1.523	1.676	37	1.938	1.321	1.600	1.846
14	2.751	1.696	0.581	-0.941	38	2.640	1.624	0.709	-0.606
15	2.102	1.230	1.073	0.393	39	2.055	1.734	1.855	2.310
16	1.924	1.270	1.398	1.048	40	1.875	1.222	1.723	2.755
17	3.300	2.169	0.535	-1.178	41	2.928	1.716	0.699	-0.483
18	2.016	1.680	1.906	2.585	42	3.864	1.809	-0.020	-0.951
19	1.838	1.248	2.104	4.959	43	2.633	1.477	0.836	0.068
20	2.279	1.986	1.575	1.026	44	2.076	1.169	1.109	1.055
21	3.684	1.958	-0.038	-1.408	45	2.326	1.363	0.981	0.465
22	1.730	1.103	2.184	5.462	46	1.684	1.029	2.570	9.090
23	1.605	1.109	2.422	6.185	47	2.838	1.605	0.620	-0.569
24	2.169	1.339	1.090	0.293					

**Evaluation of Measurement Models.** The first version of the instrument (oblique four-factor model) obtained unfavourable indices ( $CFI = .869$ ;  $RMSEA = .085$ , 90% CI .082, .088;  $SRMR = .077$ ), high inter-factor correlations ( $> .80$ ), and some items had low factor loadings (e.g., item 17,  $\lambda = .199$ ). In addition to the above, the analysis suggests correlating three pairs of residuals (items 3 and 6:  $\chi^2$  [Modification index] = 310.28; items 14 and 15:  $\chi^2$  [Modification index] = 421.19; items 32 and 33  $\chi^2$  [Modification index] = 290.01). In view of this, the item (in each pair) that had the best score of expert judges in the content analysis stage was preserved, thus eliminating items

3 and 33. However, in the case of items 14 and 15 they had the same rating according to the judges, but since it was an item oriented to men (item 14) and the other oriented to women (item 15), both were eliminated so as not to bias the survey.

Based on this analysis and reasoning in relation to the selection of items, another CFA was performed that showed a slight improvement in the fit ( $CFI = .908$ ;  $RMSEA = .076$ , 90% CI .073, .079;  $SRMR = .070$ ), although the picture was similar for two pairs of residuals (items 12 and 13  $\chi^2$  [Modification index] = 135.67; items 41 and 42  $\chi^2$  [Modification index] = 123.89), and after that, items 12, 41

and 42 were eliminated. A third analysis (CFI = .919; RMSEA = .074, 90% CI .071, .077; SRMR = .066) suggested correlating another pair of residuals (items 44 and 45  $\chi^2$  [Modification index] = 102.18; items 29 and 34  $\chi^2$  [Modification index] = 110.03), and items 29 and 44 were eliminated. Finally, items 17, 20, 21 and 28 were also eliminated because they had factor loads of low magnitude (< .40).

As for the last CFA, although the fit indices had a substantial improvement (CFI = .931; RMSEA = .074, 90% CI .070, .078; SRMR = .059), the high inter-factor correlation (> .90) was maintained, in addition to an unbalanced number of items between dimensions (F1 with 5 items; F2 with 15 items; F3 with 9 items; F4 with 5 items) and factor loads of heterogeneous magnitude in each factor (Range F1 = .624 - .916; Range F2 = .428 - .893; Range F3 = .465 - .820; Rank F4 = .503 - .812).

Based on these results, bifactor modelling was performed, evidencing a more favourable fit than the previous ones (CFI = .947; RMSEA = .067, 90% CI .063, .071; SRMR = .051), and with indicators that endorse the strength of a GF ( $\omega_H$  = .941; ECV = .802), compared to what was found in the dimensions F1 ( $\omega_H$  = .319), F2 ( $\omega_H$  = .072), F3 ( $\omega_H$  = .021) and F4 ( $\omega_H$  = .091). Then, the three items with the highest factor load in each specific factor were selected to configure the abbreviated version, since these would explain relevant variance of their specific construct beyond the presence of the general factor.

Finally, four dimensions were evaluated with 12 items and showed adequate indices (CFI = .985; RMSEA = .055, 90% CI .041, .068; SRMR = .030), factor loads above .50, and only an inter-factorial correlation greater than .80 (between F3 and F4; Table 2).

**Reliability.** Regarding the reliability score, the  $\alpha$  coefficient was acceptable in three factors, while in F4 its magnitude was relatively low (Table 2). In general, performance was better in relation to construct reliability (Table 2).

**Exploratory Analysis of Graphs.** Table 3 shows the formation of three communities, the first made up of items 1, 2, and 3 (doxing); the second is composed of items 4, 5, and 6 (Image-based harassment); finally, the third comprises items 7 to 12 (Sexual Harassment/attitudes). As for the network loads, values of between .24 and .65 were obtained, considered between low and large.

**Table 2***Final version factor loads (12 items).*

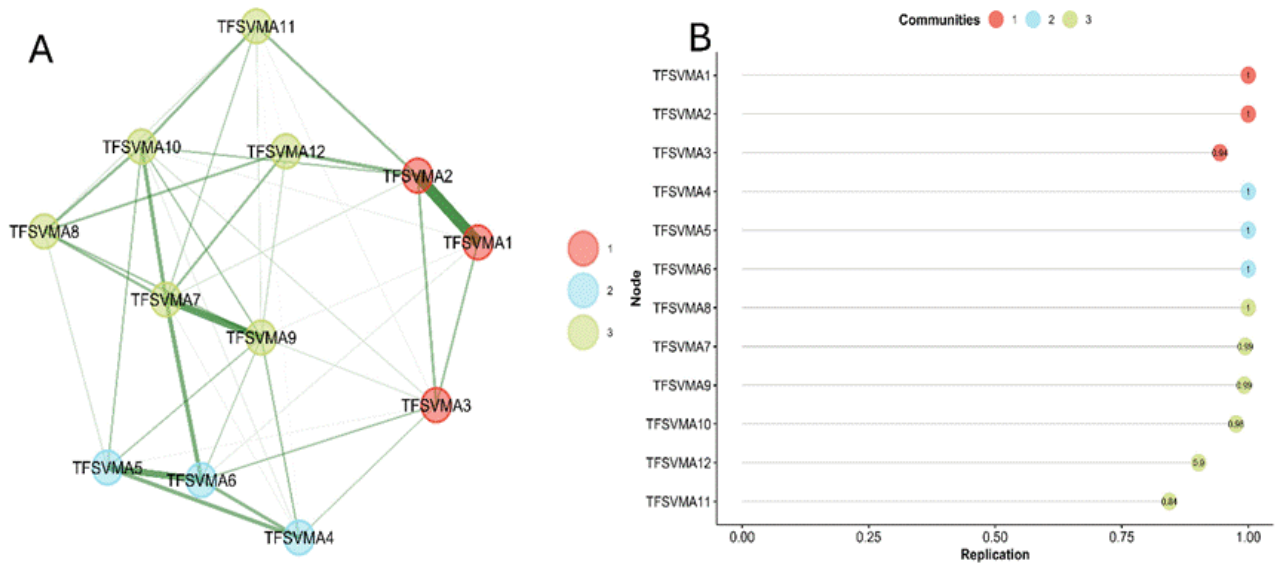
	F1	F2	F3	F4
Item 1	.804			
Item 2	.933			
Item 4	.631			
Item 9		.659		
Item 24		.732		
Item 25		.833		
Item 31			.887	
Item 32			.577	
Item 38			.795	
Item 40				.772
Item 43				.577
Item 47				.534
F1	1			
F2	.527	1		
F3	.539	.781	1	
F4	.709	.707	.938	1
$\alpha$	.659	.706	.718	.564
$\omega$	.834	.787	.803	.665

**Table 3***Network loads of the TFSVMA.*

	F1	F2	F3
TFSVMA1	.63		
TFSVMA2	.65		
TFSVMA3	.24		
TFSVMA4		.37	
TFSVMA5		.53	
TFSVMA6		.50	
TFSVMA7			.64
TFSVMA8			.39
TFSVMA9			.45
TFSVMA10			.41
TFSVMA11			.22
TFSVMA12			.24

Figure 1 shows the results of the bootstrap, whose findings showed that 98.6% of the time the three-dimensional structure was replicated, and the remaining 1.4% four communities were found; therefore, the internal structure is stable (see side A). On side B, it is observed that all items exceed .75, which indicates stability in the items. Structural consistency showed values of EC = .944, CE = 1 and CE = .742 for doxing, Image-based harassment and Sexual Harassment/attitudes, respectively.

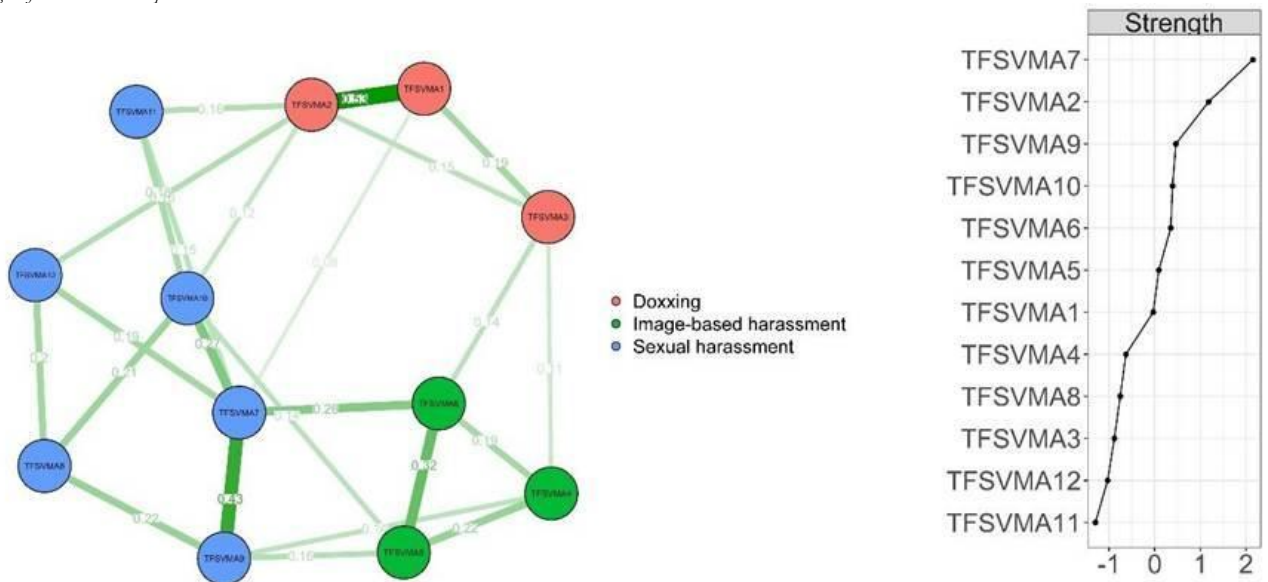
**Figure 1**  
Bootstrapped Formation of Item Communities.



**Network analysis.** The networks showed a density of 36.36%, which indicates that only that proportion of the nodes are connected to each other. Figure 2 shows that items 1 and 2 have the highest relationship ( $r = .53$ ),

followed by items 7 and 9 ( $r = .43$ ). On the other hand, the centrality index indicates that item 7 is the one with the strongest connections with the others, which denotes that it would be the most influential node in the network.

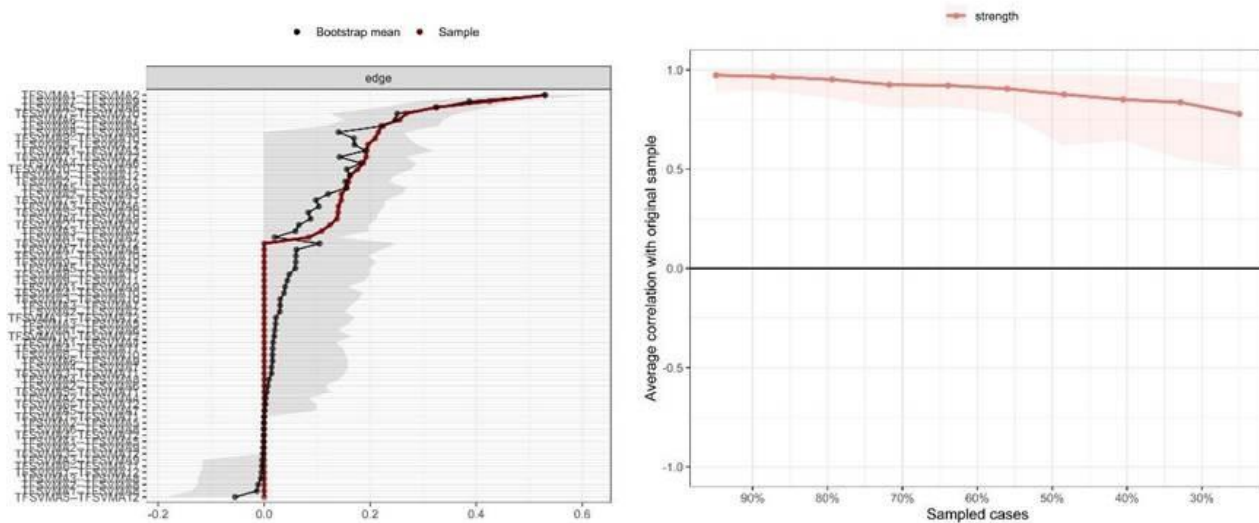
**Figure 2**  
Strength of Item Relationships.



**Stability and Precision.** Figure 3 shows that the precision is adequate, since the empirical trend lines resemble those calculated by the bootstrap, although there are certain deviations; however, it obtained a coefficient of .516, which is acceptable and indicates that the network

interconnections (edges) are maintained in the face of changes in the sample. On the other hand, stability shows that the confidence intervals are narrow for the strength index, suggesting that centrality is stable ( $CS = .595$ ).

**Figure 3**  
Estimates of Scale Stability and Precision Through Bootstrap Method.



**Latent Networks.** The internal structure was confirmed with a latent network model, whose goodness-of-fit indices were excellent ( $CFI = .996$ ,  $TLI = .995$  and  $RMSEA = .019$ ). Figure 4 shows that the factor loads had adequate values ( $\lambda > .46$ ). In addition, the correlations between the dimensions of the TFSMVA were large ( $r > .30$ ), which demonstrates validity based on the relationship with other variables.

### Phase 2b: 12-Item TFSVMA Scale Reliability and Validity

Considering the results from phase 2a, the unidimensional 12 item TFSVMA scale progressed to tests of reliability and validity, including criterion validity, convergent and discriminant validity.

**Data Analysis.** Descriptive statistics, reliability analyses, and differential item functioning (DIF) analyses were performed to assess the psychometric properties of the final 12-item version of the TFSVMA Scale (Boateng et al., 2018).

Descriptive statistics were computed for the total scale scores of the TFSVMA (12 item), as well as each item within the scale. The means and standard deviations (SD) were inspected to assess variability. Skewness and kurtosis were examined to assess the distribution with values outside the  $\pm 2$  (Skewness) and  $\pm 7$  (Kurtosis) range indicating deviations from normality (Finney & DiStefano, 2006). Additionally, normality of distributions was assessed using Kolmogorov-Smirnov (KS) and Shapiro-Wilk (SW) tests, with significant results ( $p < .05$ ) indicating a deviation from normality.

To evaluate the internal consistency and reliability of the 12-item scale several reliability analyses were conducted. Cronbach's alpha ( $\alpha$ ) was calculated to assess overall internal consistency, with values above .70 considered acceptable (Cronbach, 1951). Inter-item correlations were examined using Spearman's rank correlation coefficient ( $\rho$ ) to assess

the relationships between individual items, with values between 0.15 and 0.50 considered desirable for a well-constructed scale (Clark & Watson, 1995). Additionally, split-half reliability was assessed by calculating the correlation between two halves of the scale (odd-even method), with the Spearman-Brown correction applied to account for the reduced length of each half.

To assess whether items functioned consistently across different demographic subgroups, one-way multivariate analysis of variance (MANOVA) were performed to examine the impact of gender, sexual orientation, relationship status, ethnicity, and occupation on item responses; first individually and then combined to assess the overall effect simultaneously. Significant differences were followed up with one-way ANOVAs and post-hoc comparisons.

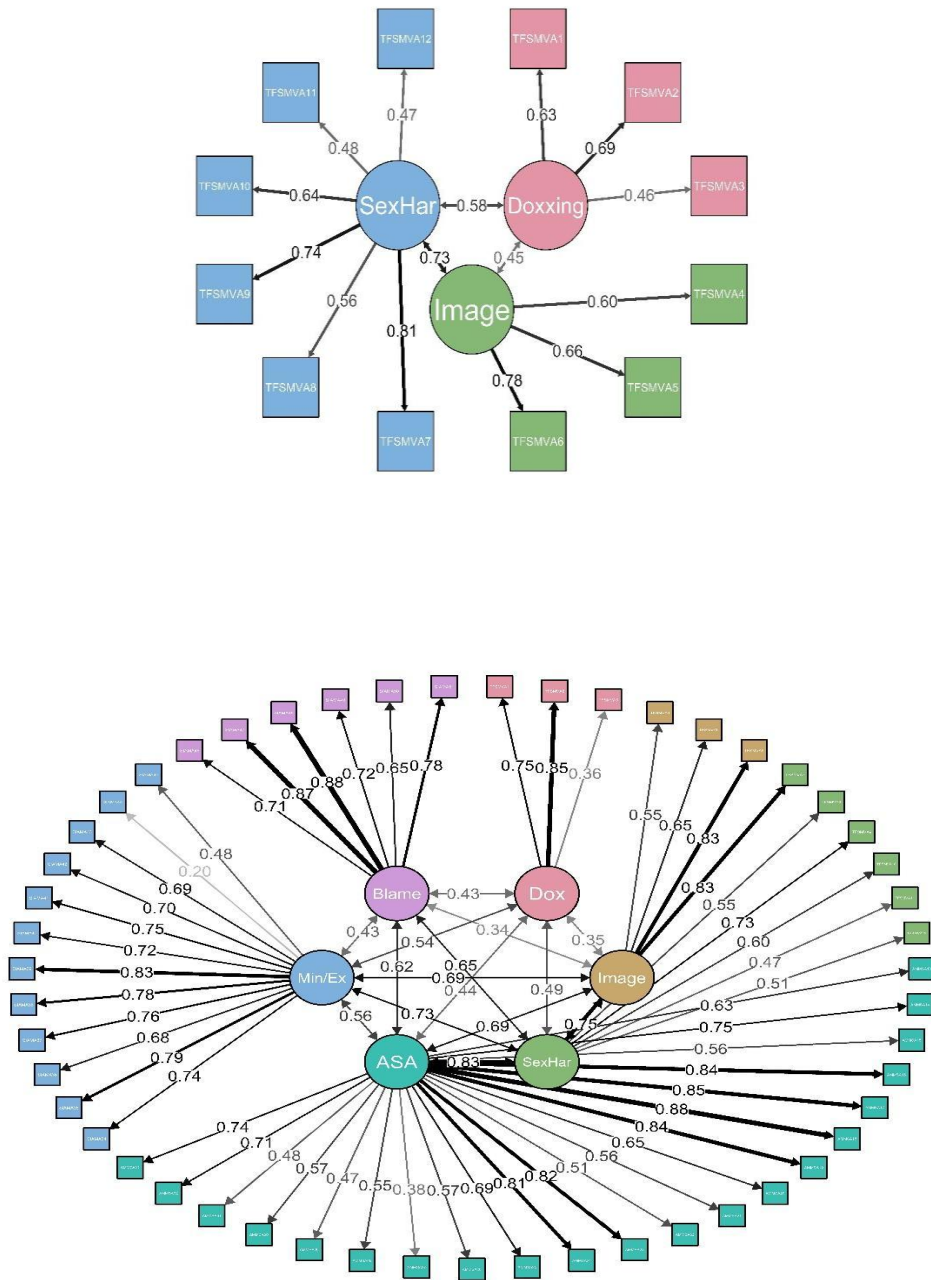
Convergent validity was assessed using Pearson correlations between the TFSVMA Scale and two theoretically related measures: the Sexual Image-Based Abuse Myth Acceptance Scale (SIAMA) and the Acceptance of Modern Myths About Sexual Aggression Scale (AMMSA-21). Discriminant validity was evaluated through a bivariate correlation between the TFSVMA Scale and the Marlowe-Crowne Social Desirability Scale.

### Results

**Scale Reliability and Descriptive Statistics.** The TFSVMA (12-item) scale had a mean score of  $M = 27.24$  ( $SD = 9.93$ ). Item means ranged from 1.52 to 3.79, with standard deviations between 0.97 and 1.82. The total scale distribution exhibited moderate skewness ( $skew = .70$ ,  $SE = .12$ ) and kurtosis ( $kurt = .23$ ,  $SE = .23$ ). Item skewness ranged from -0.17 to 2.71 ( $SE = .12$ ), and kurtosis ranged from -1.14 to 8.38 ( $SE = .23$ ), suggesting that some items exhibited non-normal distributions. Kolmogorov-Smirnov

(KS) and Shapiro-Wilk (SW) tests indicated significant deviations from normality ( $KS D = .08, p < .001$ ;  $SW W = .96, p < .001$ ), suggesting that parametric assumptions may not be fully met.

**Figure 4**  
Internal Structure and Validity of the TFSVMA Scale Through the Latent Network Model



The scale demonstrated high internal consistency, with Cronbach's  $\alpha = .83$ , indicating strong reliability (Cronbach,

1951). Inter-item correlations (Spearman's  $\rho$ ) ranged from .12 to .67, and item-total correlations ranged from .40 to .68,

confirming that all items contributed adequately to the total scale. Split-half reliability analysis using the odd-even method yielded a correlation of  $r = .75$  between two halves, with a Spearman-Brown corrected reliability coefficient of .86, further supporting the scale's reliability.

**Differential Item Functioning (DIF).** The analysis examined the differences in responses to items measuring perceptions of TFSV across multiple demographic groups, including gender, ethnicity, relationship status, sexual orientation, and occupation. Groups were re-coded into relevant categories to enable the analysis due to the small and/or uneven group sizes. The following demographic groupings were analysed: gender: male and female; ethnicity: white / European and culturally and linguistically diverse; occupation: healthcare & social work, police, security, law, and legal services, education, science, and research, business, management, finance, and government, technology, marketing, and media, trades, retail, and services, and not working; relationship status: in a relationship and not in a relationship, and sexual orientation: heterosexual and LGBTQIA+.

To assess the overall effect of each demographic variable, individual MANOVAs were first conducted for each group (e.g., gender, ethnicity, occupation). Following that, a combined MANOVA was performed to evaluate the impact of all demographic factors on the dependent variables simultaneously. Ethnicity, relationship status, and sexual orientation showed no significant differences. However, a significant multivariate effect of gender was observed (Roy's Largest Root = .11,  $F(12, 311) = 2.86$ ,  $p < .01$ ) indicating that males and females differed significantly on multiple items measuring TFSV perceptions. Follow up Welch's ANOVAs (adjusting for unequal variance) revealed significant differences between males and females on six items (items 3, 6, 7, 9, 11, and 12; all  $p < .01$ ), with males consistently scoring higher than females. For each item, the effect sizes were calculated using partial eta squared ( $\eta^2$ ). The effect sizes for all items were small to large, ranging from 0.04 to 0.16, indicating that gender had a meaningful, but moderate, influence on respondents' perceptions.

A significant MANOVA result was also found for occupation (Roy's Largest Root = .12,  $F(12, 316) = 3.18$ ,  $p < .01$ ), suggesting that individuals working in different professional fields had significantly different views on TFSV related topics. Follow-up one-way ANOVAs identified two items with significant occupation differences, item 3, "It's harmless fun to create a fake dating profile for someone using their contact information." ( $F(6, 162) = 2.52$ ,  $p = .02$ ,  $\eta^2 = .08$ ) and item 9, "Nowadays, people are too sensitive to online jokes about sex." ( $F(6, 146) = 3.19$ ,  $p < .01$ ,  $\eta^2 = .12$ ). Games Howel post hoc tests showed no significant differences between occupations for item 3, however for item 9 trades, retail and services scores were significantly higher, a mean difference of 1.25, compared to healthcare and social occupations.

**Convergent and discriminant validity.** Convergent validity was assessed by administering a Pearson correlation between the 12 item TFSVMA scale and the theoretically similar measures: SIAMA and AMMSA-21. The results showed a significant positive correlation between TFSVMA and both SIAMA,  $r(423) = .75$ ,  $p < .01$  and AMMSA-21,  $r(428) = .75$ ,  $p < .01$  respectively. Therefore, people endorsing technology-facilitated sexual violence myths also supported myths of sexual aggression and sexual image-based abuse. Additionally, discriminant validity was analysed through a bivariate correlation between TFSVMA and the Marlowe-Crowne Social Desirability scale, which were uncorrelated,  $r(431) = .02$ ,  $p = .67$ . These results therefore support the TFSVMA scales convergent and discriminant construct validity.

### Discussion

The findings of phase 2 provide strong support for the reliability, validity, and internal structure of the TFSVMA scale. The scale demonstrated robust psychometric properties, with high internal consistency and a well-defined factor structure, making it a useful tool for measuring attitudes toward TFSV myths.

A bifactor model revealed a dominant general factor (GF), with high omega hierarchical ( $\omega_H = 0.94$ ) and explained common variance (ECV = 0.80). This suggests that the scale primarily captures a unidimensional construct of TFSV myth acceptance, while secondary dimensions, doxxing, image-based harassment, and online sexual harassment, contribute additional, domain-specific variance. Based on these findings, a 12-item abbreviated version of the scale was developed to ensure concise yet comprehensive coverage across these core domains. Confirmatory factor analysis (CFA) of the shortened scale demonstrated excellent model fit (CFI = .99, RMSEA = .06, 90% CI [.04, .07]; SRMR = .03), with all items showing strong factor loadings ( $\geq .50$ ).

However, the inter-factor correlation between two subdimensions, F3 ("online sexual harassment") and F4 ("perceptions of severity"), remained high ( $r > .80$ ), suggested conceptual overlap. Network analysis supported this, with items from both factors clustering in the same community. This convergence suggests that the constructs may not be as empirically distinct as initially theorised. Additionally, the internal consistency of F4 was relatively low ( $\alpha = .56$ ), prompting a review of its items. Upon closer examination, the F4 items (e.g., *It doesn't really count as sexual violence if it only happened online and not physically; It's enough to have the sexual content taken down, even if the person responsible isn't caught; If someone is careful and responsible with their digital device security, they won't be a victim of online sexual abuse*) aligned more closely with attitudes underpinning online sexual harassment. This reclassification is also supported by prior research (Buchanan & Mahoney, 2022; Flynn et al., 2022c), which highlights the role of minimization and victim-blaming

beliefs as central features of online sexual harassment myths.

The emergence of three distinct communities in the network; doxxing, image-based harassment, and online sexual harassment, aligns with conceptual distinctions made in recent typologies of TFSV (e.g., Flynn et al., 2022c; Powell & Henry, 2017), reinforcing the view that while these behaviours are interconnected, they are perceived and rationalized through domain-specific myths. The moderate density suggests that while these myths are related, they do not form a tightly cohesive belief system, which may reflect fragmented societal understandings of digital forms of violence.

The centrality of Item 7, which reflects minimization and sensitivity accusations toward women, is especially noteworthy. This belief echoes broader societal patterns of gendered dismissal, long documented in the literature on sexual harassment (e.g., Glick & Fiske, 2001) and may act as a justificatory anchor that legitimizes other myths by framing victims' responses as exaggerated or irrational. Its central position in the network suggests that such minimization may play a pivotal role in sustaining the broader structure of TFSV myth acceptance. This supports theoretical frameworks that position victim-blaming and harm minimisation as central mechanisms in the normalisation of gendered digital violence (Buchanan & Mahoney, 2022; Killean et al., 2022). Targeting this belief in prevention efforts may therefore disrupt the broader attitudinal system more effectively than focusing on more peripheral or specific myths.

Gender differences emerged in six specific items, with men scoring significantly higher than women. These findings align with previous research highlighting gendered patterns in the endorsement of sexual violence myths and victim-blaming (Koon-Magnin & Schulze, 2019; Li, 2025; Schulze & Koon-Magnin, 2017; See, 2017; Weare & Willmott, 2024). The presence of DIF in these items suggests that some myth-related beliefs may be more salient or socially sanctioned among men, aligning with theories of hegemonic masculinity and gendered norms surrounding sexual entitlement (See, 2017; Suarez & Gadalla, 2010). In contrast, the absence of significant differences based on ethnicity, relationship status, and sexual orientation suggests that TFSV myth acceptance is less contingent on individual identity factors and more reflective of broader gendered socialisation patterns (Murray et al., 2023; Suarez & Gadalla, 2010; Urban & Porras Pylans, 2022; Weare & Willmott, 2024).

The difference between occupation on the items, specifically item 9, should be interpreted with caution due to the way in which this demographic data was collected and categorised. Occupation was a free text response and further categorised by industry and again combined and generalised to create groups suitable for analysis. While the categorisation reflects broad industries of employment, it

may have lost the nuances and accuracy in which to make robust comparisons.

Finally, the TFSV myth acceptance scale showed strong convergent validity, with significant positive correlations with the established measures of sexual aggression and image-based abuse myth acceptance. This supports the scales broader theoretical alignment with other forms of sexual aggression and their underlying constructs of sexism, victim-blame, and harm-minimisation (Bohner et al., 2022; Powell et al., 2019). Furthermore, the scale demonstrated discriminant validity, as evidenced by its lack of association with social desirability bias, supporting the robustness of participant responses.

## General Discussion

This research aimed to develop and validate the Technology-Facilitated Sexual Violence Myth Acceptance (TFSVMA) scale, a novel attitudinal instrument designed to measure endorsement of myths surrounding TFSV. Given the increasing prevalence and normalization of TFSV, understanding the beliefs and attitudes that underpin such behaviours is vital for both research and intervention. Using a systematic, multi-phase approach, we produced a 12-item scale demonstrating strong reliability, factorial validity, and construct validity.

To our knowledge, the TFSVMA is the first validated instrument to conceptualize myth acceptance across the broader construct of TFSV. Previous attitudinal tools have tended to isolate specific behaviours such as image-based abuse (Powell et al., 2019), online sexual harassment (Buchanan & Mahoney, 2022), or non-consensual sexting (Rodríguez-Castro et al., 2017) or have focused on behaviour occurring within intimate or dating relationships (Henry et al., 2020). In contrast, the TFSVMA captures myths spanning a variety of technological sexual violence behaviours, regardless of relational context, and is suitable for use across diverse age groups and populations.

This focus on attitudinal endorsement differentiates the TFSVMA from studies measuring prevalence, victimisation, or perpetration (e.g., Machackova et al., 2020; Martínez-Bacaicoa et al., 2024). Instead, the TFSVMA addresses the sociocultural beliefs that justify or trivialise TFSV and perpetuate harm (Flynn et al., 2022b; Powell et al., 2018; Suarez & Gadalla, 2010). In doing so, it offers a timely and theoretically grounded tool for exploring the evolving nature of sexual violence in technological contexts, with applications in prevention, intervention, and policy development.

## Implications of findings

The TFSVMA scale provides researchers with a standardized and psychometrically sound tool for assessing attitudes toward TFSV myths, contributing to a better

understanding of the cognitive and attitudinal mechanisms that perpetuate the normalization of TFSV and related victim-blaming beliefs.

In applied contexts, the scale can inform training programs, particularly among professionals in law enforcement, legal, and healthcare settings. Identifying the most commonly endorsed myths enables the development of targeted educational initiatives designed to challenge misconceptions and foster more informed, victim-sensitive responses. The results also highlight the importance of accounting for gender differences in myth acceptance, which may inform population-specific prevention strategies.

### Next steps, limitations and future research

Several limitations should be noted. First, the scale excludes some technology-facilitated behaviours, such as online coercion, stalking, and digital surveillance, which are commonly discussed in TFSV literature (Flynn et al., 2022a; Henry et al., 2020). These were intentionally excluded due to their primary conceptualisation as control-based rather than overtly sexual. However, this distinction may be contested from a feminist or survivor-informed lens, where coercive control is recognised as part of a broader continuum of sexual violence. Future iterations of the scale may benefit from incorporating these behaviours, particularly as TFSV definitions continue to evolve.

Second, several items in the TFSVMA explicitly frame women as victims, consistent with the evidence that women are disproportionately targeted (Flynn et al., 2022a; Henry & Powell, 2015). While this aligns with a gendered violence framework, such language may limit the instrument's perceived relevance among male and gender-diverse victim-survivors. It may also reinforce narrow assumptions about who experiences harm (Bates, 2017). Future research could explore the development of parallel or inclusive versions of

the scale, while maintaining its grounding in gender-based violence theory.

Third, the scale was validated in English-speaking populations, which may limit its generalisability. Cross-cultural validation is needed to assess its relevance and psychometric performance across diverse linguistic and cultural contexts. In addition, longitudinal studies would be valuable in assessing the stability of myth acceptance over time and evaluating the impact of interventions. Given the dynamic nature of digital technology and emerging forms of abuse, the scale may require periodic updates to ensure continued relevance.

### Conclusion

This study represents an important advancement in the assessment of attitudes toward technology-facilitated sexual violence. The TFSVMA scale offers a psychometrically robust tool for researchers and practitioners seeking to explore and challenge the myths that normalise and sustain technological sexual abuse. With demonstrated reliability and validity, the scale is suited for use in academic research, training programs, and public education campaigns.

Future work should focus on adapting and validating the scale across cultures, incorporating underrepresented victim groups, and tracking changes in attitudes over time. By deepening our understanding of TFSV myth acceptance, this research contributes to the broader goal of dismantling harmful norms and improving support for victim-survivors in both digital and institutional spaces.

### Complementary information

**Conflict of interest.**- The authors declare no conflict of interest.

**Financial support.**- No funding.

**Data Research Availability Statement.**- The data used for this study are available upon reasonable request to the corresponding author.

### References

- Aiken, L. R. (1980). Content validity and reliability of single items or questionnaires. *Educational and Psychological Measurement*, 40(4), 955–959. <https://doi.org/10.1177/001316448004000419>
- Anderson, B., & Wood, M. A. (2021). Doxxing: A scoping review and typology. *The Emerald International Handbook of Technology-Facilitated Violence and Abuse*, 205–226. <https://doi.org/10.1108/978-1-83982-848-520211015>
- Bates, S. (2017). Revenge porn and mental health: A qualitative analysis of the mental health effects of revenge porn on female survivors. *Feminist Criminology*, 12(1), 22–42. <https://doi.org/10.1177/1557085116654565>
- Bailey, J., Henry, N., & Flynn, A. (2021). Technology-facilitated violence and abuse: International perspectives and experiences. In J. Bailey, N. Henry, & A. Flynn (Eds.), *The Emerald International Handbook of Technology-Facilitated Violence and Abuse* (pp. 1–17). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-83982-848-520211001>
- Benítez-Hidalgo, V., Henares-Montiel, J., Ruiz-Pérez, I., & Pastor-Moreno, G. (2024). International prevalence of technology-facilitated sexual violence against women: A systematic review and meta-analysis of observational studies. *Trauma, Violence, & Abuse*, 26(4), 668–681. <https://doi.org/10.1177/15248380241286813>
- Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quinonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: A primer. *Frontiers in Public Health*, 6, 149. <https://doi.org/10.3389/fpubh.2018.00149>
- Bohner, G., Weiss, A., Megias, J. (2022). AMMSA-21: A revised version of the acceptance of modern myths about sexual aggression scale in English, German, Polish and Spanish. *International journal of social psychology*, 37(3), 460–491. <https://doi.org/10.1080/02134748.2022.2083291>
- Borrajó, E., & Calvete, E. (2015). Justification beliefs of violence, myths about love and cyber dating abuse. *Psicothema*, 27(4), 327–333. DOI: 10.7334/psicothema2015.59
- Brown, C., & Hegarty, K. (2021). Development and validation of the TAR scale: A measure of technology-facilitated abuse in relationships. *Computers in Human Behavior Reports*, 3, 1–10. <https://doi.org/10.1016/j.chbr.2021.100059>

- Brown, T. A. (2015). *Confirmatory factor analysis for applied research* (2nd ed.). Guilford Publications.
- Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research*, 21(2), 230–258. <https://doi.org/10.1177/0049124192021002005>
- Buchanan, N., & Mahoney, A. (2022). Development of a scale measuring online sexual harassment: Examining gender differences and the emotional impact of sexual harassment victimization online. *Legal and Criminological Psychology*, 27(1), 63–81. <https://doi.org/10.1111/lcrp.12197>
- Carpenter, S. (2018). Ten steps in scale development and reporting: A guide for researchers. *Communication Methods and Measures*, 12(1), 25–44. DOI: 10.1080/19312458.2017.1396583
- Chatzysymeonidis, S., & Pina, A. (2024). Exploring police attitudes on victims' delayed reporting and victim blame in technology-facilitated IPV. *Crime Science*, 13(1), 12. <https://doi.org/10.1186/s40163-024-00213-x>
- Champion, A. R., Oswald, F., Khera, D., & Pedersen, C. L. (2022). Examining the gendered impacts of technology-facilitated sexual violence: A mixed methods approach. *Archives of Sexual Behavior*, 51(3), 1607–1624. DOI: 10.1007/s10508-021-02226-y
- Christensen, A. P., & Golino, H. (2021a). Estimating the stability of psychological dimensions via bootstrap exploratory graph analysis: A Monte Carlo simulation and tutorial. *Psych*, 3(3), 479–500. <https://doi.org/10.3390/psych3030032>
- Christensen, A. P., & Golino, H. (2021b). On the equivalency of factor and network loadings. *Behavior Research Methods*, 53(4), 1563–1580. <https://doi.org/10.3758/s13428-020-01500-6>
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment*, 7(3), 309–319. <https://doi.org/10.1037/1040-3590.7.3.309>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Abingdon. Routledge. <https://doi.org/10.4324/9780203771587>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
- Cross, C., Holt, T., Powell, A., & Wilson, M. (2021). Responding to cybercrime: Results of a comparison between community members and police personnel. *Trends and Issues in Crime and Criminal Justice*, (635), 1–20. <https://doi.org/10.52922/ti78207>
- Crowne, D. P., & Marlowe, D. (1960). Marlowe-Crowne social desirability scale. *Journal of Consulting Psychology*, 24(4), 349–354. <https://doi.org/10.1037/h0047358>
- De Araújo, A. V. M., Bonfim, C. V. do, Bushatsky, M., & Furtado, B. M. A. (2022). Technology-facilitated sexual violence: A review of virtual violence against women. *Research, Society and Development*, 11(2), e57811225757–e57811225757. <https://doi.org/10.33448/rsd-v11i2.25757>
- Domínguez-Lara, S. (2018). Propuesta de puntos de corte para cargas factoriales: una perspectiva de fiabilidad de constructo [Proposal for cut-offs for factor loadings: A construct reliability perspective]. *Enfermería Clínica*, 28(6), 401–402. <https://doi.org/10.1016/j.enfcli.2018.06.002>
- Domínguez-Lara, S., & Merino-Soto, C. (2018). Evaluación de las malas especificaciones en modelos de ecuaciones estructurales [Testing misspecifications in structural equation modeling]. *Revista Argentina de Ciencias del Comportamiento*, 10(2), 19–24. <https://doi.org/10.30882/1852.4206.v10.n2.19595>
- Domínguez-Lara, S., & Rodríguez, A. (2017). Statistical indices from bifactor models. *Interacciones*, 3(2), 59–65. <https://doi.org/10.24016/2017.v3n2.51>
- Dunn, S. (2020). *Technology-facilitated gender-based violence: An overview* (Supporting a Safer Internet Paper No. 1). Centre for International Governance Innovation. <https://www.cigionline.org/publications/technology-facilitated-gender-based-violence-overview/>
- Epskamp, S. (2020). *Bootnet: Bootstrap methods for various network estimation routines*. <https://cran.r-project.org/package=bootnet>
- Epskamp, S. (2021). *Psychonetrics: Structural equation modeling and confirmatory network analysis*. <https://CRAN.R-project.org/package=psychonetrics>
- Epskamp, S., Borsboom, D., & Fried, E. I. (2018). Estimating psychological networks and their accuracy: A tutorial paper. *Behavior Research Methods*, 50(1), 195–212. <https://doi.org/10.3758/s13428-017-0862-1>
- Epskamp, S., Cramer, A. O. J., Waldorp, L. J., Schmittmann, V. D., & Borsboom, D. (2012). qgraph: Network Visualizations of Relationships in Psychometric Data. *Journal of Statistical Software*, 48(4), 1–18. <https://doi.org/10.18637/jss.v048.i04>
- Epskamp, S., & Fried, E. I. (2018). A tutorial on regularized partial correlation networks. *Psychological Methods*, 23(4), 617–634. <https://doi.org/10.1037/met0000167>
- eSafety Commissioner (2023) *Technology-facilitated abuse: family, domestic and sexual violence literature scan*, Canberra: Australian Government. <https://www.esafety.gov.au/research/literature-scan-of-tech-based-family-domestic-and-sexual-violence>
- Finney S. J., & DiStefano C. (2006). Non-normal and categorical data in structural equation modeling. In G. R. Hancock & R. O. Mueller (Eds.), *Structural Equation Modeling. A Second Course* (pp. 269–314). Information Age Publishing.
- Fisico, R., & Harkins, L. (2021). Technology and sexual offending. *Current Psychiatry Reports*, 23, 1–8. <https://doi.org/10.1007/s11920-021-01269-1>
- Flores-Kanter, P. E., Domínguez-Lara, S., Trógolo, M. A., & Medrano, L. A. (2018). Best practices in the use of bifactor models: Conceptual grounds, fit indices and complementary indicators. *Revista Evaluar*, 18(3), 44–48. <https://doi.org/10.35670/1667-4545.v18.n3.22221>
- Flynn, A., Hinds, S., & Powell, A. (2022a). *Technology-facilitated abuse: Interviews with victims and survivors and perpetrators*. Australia's National Research Organisation for Women's Safety (ANROWS). <https://www.anrows.org.au/publication/technology-facilitated-abuse-interviews-with-victims-and-survivors-and-perpetrators/>
- Flynn, A., Powell, A., & Hinds, S. (2021). *Technology-facilitated abuse: A survey of support services stakeholders*. (Research Report, 02/2021). ANROWS. <https://www.anrows.org.au/publication/technology-facilitated-abuse-a-survey-of-support-services-stakeholders/>
- Flynn, A., Powell, A., & Hinds, S. (2022b). Technology-facilitated gender-based violence: Developing an integrated theoretical framework. *Trauma, Violence, & Abuse*, 23(1), 155–166. <https://doi.org/10.1177/1524838020933874>
- Flynn, A., Powell, A., Scott, A. J., & Cama, E. (2022c). Deepfakes and digitally altered imagery abuse: A cross-country exploration of an emerging form of image-based sexual abuse. *The British Journal of Criminology*, 62(6), 1341–1358. <https://doi.org/10.1093/bjc/azab111>
- Gómez-Guadix, M., Sorrel, M. A., & Martínez-Bacaicoa, J. (2022). Technology-facilitated sexual violence perpetration and victimization among adolescents: A network analysis. *Sexuality Research and Social Policy*, 20, 1000–1012. <https://doi.org/10.1007/s13178-022-00775-y>
- Glick, P., & Fiske, S. T. (2001). An ambivalent alliance: Hostile and benevolent sexism as complementary justifications for gender inequality. *American Psychologist*, 56(2), 109–118. <https://doi.org/10.1037/0003-066X.56.2.109>
- Golino, H., Shi, D., Christensen, A. P., Garrido, L. E., Nieto, M. D., Sadana, R., Thiagarajan, J. A., & Martínez-Molina, A. (2020). Investigating the performance of exploratory graph analysis and traditional techniques to identify the number of latent factors: A simulation and tutorial. *Psychological Methods*, 25(3), 292–320. DOI: 10.1037/met0000255
- Henry, N., Flynn, A., & Powell, A. (2018). Policing image-based sexual abuse: Stakeholder perspectives. *Police Practice and Research*, 19(6), 565–581. <https://doi.org/10.1080/15614263.2018.1507892>
- Henry, N., McGlynn, C., Flynn, A., Johnson, K., Powell, A., & Scott, A. J. (2020). *Image-based sexual abuse: A study on the causes and impacts of non-consensual nude or sexual imagery* (1st Ed.). Routledge. <https://doi.org/10.4324/9781351135153>
- Henry, N., & Powell, A. (2015). Embodied harms: Gender, shame, and technology-facilitated sexual violence. *Violence Against Women*, 21(6), 758–779. <https://doi.org/10.1177/1077801215576581>
- Henry, N., & Powell, A. (2016). Sexual violence in the digital age: The scope and limits of criminal law. *Social & Legal Studies*, 25(4), 397–418. <https://doi.org/10.1177/0964663915624273>
- Henry, N., & Powell, A. (2018). Technology-facilitated sexual violence: A literature review of empirical research. *Trauma, Violence, & Abuse*, 19(2), 195–208. <https://doi.org/10.1177/1524838016650189>

- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Hunsley, J., & Mash, E. J. (2008). Developing criteria for evidence-based assessment: An introduction to assessment that works. In J. Hunsley & E. J. Mash (Eds.) *A guide to assessments that work* (pp. 3–14). Oxford University Press. <https://doi.org/10.1093/med:psych/9780195310641.001.0001>
- Isvoranu, A. M., & Epskamp, S. (2023). Which estimation method to choose in network psychometrics? Deriving guidelines for applied researchers. *Psychological Methods*, 28(4), 925–946. <https://doi.org/10.1037/met0000439>
- Johnson, N. L., & Johnson, D. M. (2021). An empirical exploration into the measurement of rape culture. *Journal of Interpersonal Violence*, 36(1–2), NP70–NP95. <https://doi.org/10.1177/0886260517732347>
- Killean, R., McAlinden, A. M., & Dowds, E. (2022). Sexual violence in the digital age: replicating and augmenting harm, victimhood and blame. *Social & Legal Studies*, 31(6), 871–892. DOI: 10.1177/09646639221086592
- Koon-Magnin, S., & Schulze, C. (2019). Providing and receiving sexual assault disclosures: Findings from a sexually diverse sample of young adults. *Journal of Interpersonal Violence*, 34(2), 416–441. <https://doi.org/10.1177/0886260516641280>
- Koukopoulos, N., Janicky, M., & Tanczer, L. M. (2025). Defining and conceptualizing technology-facilitated abuse (“tech abuse”): Findings of a global delphi study. *Journal of Interpersonal Violence*, 0(0). <https://doi.org/10.1177/08862605241310465>
- Li, L. (2025). Rape myth acceptance in the digital age: The effects of using dating apps and the moderation role of gender. *Human Behavior and Emerging Technologies*, 2025(1). <https://doi.org/10.1155/hbe2/9091296>
- Machackova, H., Blaya, C., Bedrosova, M., Smahel, D., & Staksrud, E. (2020). *Children's experiences with cyberhate*. EU Kids Online. <https://doi.org/10.21953/lse.zenk9xw6pua>
- Madadzadeh, F., & Bahariniya, S. (2023). Tutorial on how to calculating content validity of scales in medical research. *Perioperative Care and Operating Room Management*, 31, 100315–. <https://doi.org/10.1016/j.pocm.2023.100315>
- Martínez-Bacaicoa, J., Alonso-Fernández, M., Wachs, S., & Gámez-Guadix, M. (2023). Prevalence and motivations for technology-facilitated gender- and sexuality-based violence among adults: A mixed-methods study. *Sex Roles*, 89(11), 670–684. <https://doi.org/10.1007/s11199-023-01412-7>
- Martínez-Bacaicoa, J., Sorrel, M. A., & Gámez-Guadix, M. (2024). Development and validation of technology-facilitated sexual violence perpetration and victimization scales among adults. *Assessment*, 31(8), 1580–1597. DOI: 10.1177/10731911241229575
- McDonald, R. P., & Ho, M.-H. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, 7(1), 64–82. <https://doi.org/10.1037/1082-989X.7.1.64>
- Murray, C., Mercado Guerra, J., Calderón, C., & Bahamondes, J. (2023). Mitos de violación en YouTube: Comentarios en el caso de Antonia Barra [Rape myths on Youtube: Comments on the Antonia Barra case]. *Psyke (Santiago)*, 32(2). <http://dx.doi.org/10.7764/psykhe.2021.43549>
- Muthén, L. K., & Muthén, B. O. (1998–2015). *Mplus User's guide* (7th ed.). Muthén & Muthén.
- Payne, D. L., Lonsway, K. A., & Fitzgerald, L. F. (1999). *Illinois Rape Myth Acceptance Scale-Short Form (IRMA-SF)* [Database record]. APA PsycTests. <https://doi.org/10.1037/t09511-000>
- Pina, A., Holland, J., & James, M. (2017). The malevolent side of revenge porn proclivity: Dark personality traits and sexist ideology. *International Journal of Technoethics*, 8 (1), 30–43. <https://doi.org/10.4018/IJT.2017010103>
- Ponterotto, J., & Charter, R. (2009). Statistical extensions of Ponterotto and Ruckdeschel's (2007) reliability matrix for estimating the adequacy of internal consistency coefficients. *Perceptual and Motor Skills*, 108(3), 878–886. <https://doi.org/10.2466/PMS.108.3.878-886>
- Powell, A., & Henry, N. (2017). *Sexual violence in a digital age*. Palgrave Macmillan. DOI 10.1057/978-1-137-58047-4
- Powell, A., Henry, N., & Flynn, A., & Scott, A. J. (2019). Image-based sexual abuse: The extent, nature, and predictors of perpetration in a community sample of Australian residents. *Computers in Human Behavior*, 92, 393–402. <https://doi.org/10.1016/j.chb.2018.11.009>
- Powell, A., Scott, A. J., Flynn, A., & McCook, S. (2022). Perpetration of image-based sexual abuse: Extent, nature and correlates in a multi-country sample. *Journal of Interpersonal Violence*, 37(23–24), NP22864–NP22889. <https://doi.org/10.1177/08862605211072266>
- Powell, A., Scott, A. J., Flynn, A., & McCook, S. (2024). A multi-country study of image-based sexual abuse: Extent, nature and correlates of victimisation experiences. *Journal of Sexual Aggression*, 30(1), 25–40. <https://doi.org/10.1080/13552600.2022.2119292>
- Powell, A., Scott, A. J., & Henry, N. (2020). Digital harassment and abuse: Experiences of sexuality and gender minority adults. *European Journal of Criminology*, 17(2), 199–223. <https://doi.org/10.1177/1477370818788006>
- Powell, A., Stratton, G., & Cameron, R. (2018). *Digital criminology: Crime and justice in digital society* (1st ed.). Routledge. <https://doi.org/10.4324/9781315205786>
- Powell, A., Scott, A. J., Flynn, A., & McCook, S. (2022). Perpetration of image-based sexual abuse: Extent, nature and correlates in a multi-country sample. *Journal of Interpersonal Violence*, 37(23–24), NP22864–NP22889. <https://doi.org/10.1177/08862605211072266>
- Rackley, E., McGlynn, C., Johnson, K., Henry, N., Gavey, N., Flynn, A., & Powell, A. (2021). Seeking justice and redress for victim-survivors of image-based sexual abuse. *Feminist Legal Studies*, 29(3), 293–322. <https://doi.org/10.1007/s10691-021-09460-8>
- Reynolds, W. M., (1982). Development of reliable and valid short forms of the marlowe-crowne social desirability scale. *Journal of Clinical Psychology*, 38(1), 119–125. [https://doi.org/10.1002/1097-4679\(198201\)38:1<119::AID-JCLP2270380118>3.0.CO;2-I](https://doi.org/10.1002/1097-4679(198201)38:1<119::AID-JCLP2270380118>3.0.CO;2-I)
- Rindestig, F. C., Gådin, K. G., Jonsson, L., Svedin, C. G., Landberg, Å., & Dennhag, I. (2025). A latent class analysis of technology-facilitated sexual violence: Associations to other victimizations, psychiatric symptoms, and gender. *Child Abuse & Neglect*, 161, 107309. <https://doi.org/10.1016/j.chiabu.2025.107309>
- Ringrose, J., Regehr, K., Milne, B; (2021) *Understanding and combatting youth experiences of image-based sexual harassment and abuse*. Department of Education, Practice and Society, UCL Institute of Education: London, UK. <https://discovery.ucl.ac.uk/id/eprint/10139669>
- Robinaugh, D. J., Millner, A. J., & McNally, R. J. (2016). Identifying highly influential nodes in the complicated grief network. *Journal of Abnormal Psychology*, 125(6), 747–757. <https://doi.org/10.1037/abn0000181>
- Rodríguez-Castro, Y., Alonso-Ruido, P., González-Fernández, A., Lameiras-Fernández, M., & Carrera-Fernández, M. V. (2017). Spanish adolescents' attitudes towards sexting: Validation of a scale. *Computers in Human Behavior*, 73, 375–384. <https://doi.org/10.1016/j.chb.2017.03.049>
- Rodríguez, M., & Ruiz, M. (2008). Atenuación de la asimetría y de la kurtosis de las puntuaciones observadas mediante transformaciones de variables: Incidencia sobre la estructura factorial [Attenuation of the asymmetry and kurtosis of observed scores through variable transformations: Impact on the factorial structure]. *Psicológica*, 29, 205–227. <https://www.uv.es/psicologica/articulos2.08/6RODRIGUEZ.pdf>
- Rodríguez, A., Reise, S.P., & Haviland, M.G. (2016). Applying bifactor statistical indices in the evaluation of psychological measures. *Journal of Personality Assessment*, 98(3), 223–237. <https://doi.org/10.1080/00223891.2015.1089249>
- Ryan, K.M. (2013). Issues of reliability in measuring intimate partner violence during courtship. *Sex Roles*, 69, 131–148. <https://doi.org/10.1007/s11199-012-0233-4>
- Saris, W. E., Satorra, A., & van der Veld, W. M. (2009). Testing structural equation modeling or detection of misspecifications? *Structural Equation Modeling*, 16(4), 561–582. <https://doi.org/10.1080/10705510903203433>
- Schulze, C., & Koon-Magnin, S. (2017). Gender, sexual orientation, and rape myth acceptance: Preliminary findings from a sample of primarily LGBTQ-identified survey respondents. *Violence and Victims*, 32(1), 159–180. <https://doi.org/10.1891/0886-6708.VV-D-15-00017>

- See, W. W. (2017). Differences of rape myth acceptance between genders: A systematic review. In *Graduate Research in Education Seminar (GREduc)* (pp. 43–51). Faculty of Educational Studies, Universiti Putra Malaysia. <http://psasir.upm.edu.my/id/eprint/58751>
- Seewald, L., Walsh, T. B., Tolman, R. M., Lee, S. J., Reed, L. A., Ngo, Q., & Singh, V. (2022). Technology-facilitated abuse prevalence and associations among a nationally representative sample of young men. *The Annals of Family Medicine*, 20(1), 12–17. <https://doi.org/10.1370/afm.2758>.
- Sheikh, M. M. R., & Rogers, M. M. (2024). Technology-facilitated sexual violence and abuse in low and middle-income countries: A scoping review. *Trauma, Violence, & Abuse*, 25(2), 1614–1629. DOI: 10.1177/15248380231191189
- Silva Santos, I. L., Pimentel, C. E., & Mariano, T. E. (2023). Cyberstalking scale: Development and relations with gender, FOMO and social media engagement. *Current Psychology*, 42(6), 4802–4810. <https://doi.org/10.1007/s12144-021-01823-3>
- Sparks, B., Stephens, S., & Trendell, S. (2023). Image-based sexual abuse: Victim-perpetrator overlap and risk-related correlates of coerced sexting, non-consensual dissemination of intimate images, and cyberflashing. *Computers in Human Behavior*, 148. <https://doi.org/10.1016/j.chb.2023.107879>.
- Suarez, E., & Gadalla, T. M. (2010). Stop blaming the victim: A meta-analysis on rape myths. *Journal of Interpersonal Violence*, 25(11), 2010–2035. <https://doi.org/10.1177/0886260509354503>
- Tziallas, E. (2015). Gamified eroticism: Gay male “social networking” applications and self-pornography. *Sexuality & Culture*, 19, 759–775. <https://doi.org/10.1007/s12119-015-9288-z>
- University of Jaén (2021). *Code of Good Practice in Research*. [https://www.ujaen.es/gobierno/viciniv/sites/gobierno\\_viciniv/files/uploads/SERVICIOS%20T%C3%89CNICOS%20DE%20INVESTIGACI%C3%93N.pdf](https://www.ujaen.es/gobierno/viciniv/sites/gobierno_viciniv/files/uploads/SERVICIOS%20T%C3%89CNICOS%20DE%20INVESTIGACI%C3%93N.pdf)
- Urban, R. E., & Porras Pyland, C. (2022). Development and preliminary validation of the gender inclusive rape myth acceptance scale. *Journal of Interpersonal Violence*, 37(21–22), NP20630–NP20652. <https://doi.org/10.1177/08862605211055076>
- Villora, B., Navarro, R., & Yubero, S. (2019). Abuso online en el noviazgo y su relación con el abuso del móvil, la aceptación de la violencia y los mitos sobre el amor [Cyber dating abuse and its association with mobile abuse, acceptance of violence and myths of love]. *Suma Psicológica*, 26(1), 46–54. <https://doi.org/10.14349/sumapsi.2019.v26.n1.6>
- Vizcaino-Cuenca, R., Romero-Sánchez, M., & Carretero-Dios, H. (2025). (Cyber)rape culture: Development and validation of the acceptance of myths about cyber-sexual violence against women (AMCYS) scale in Spanish and English. *Psychology of Women Quarterly*, 49(2), 277–301. <https://doi.org/10.1177/03616843251330248>
- Walker, K., Sleath, E., Hatcher, R. M., Hine, B., & Crookes, R. L. (2021). Nonconsensual sharing of private sexually explicit media among university students. *Journal of Interpersonal Violence*, 36(17–18), NP9078–NP9108. DOI: 10.1177/0886260519853414
- Weare, S., & Willmott, D. (2024). The forced-to-penetrate myth acceptance scale (FTP-MAS): A new attitudinal tool for assessing myths that surround female perpetrated sexual violence against men. *Behavioral Sciences & the Law*, 43(1), 158–168. <https://doi.org/10.1002/bsl.2706>
- Wolford-Clevenger, C., Zapor, H., Brasfield, H., Febres, J., Elmquist, J., Brem, M., Shorey, R. C., & Stuart, G. L. (2016). An examination of the partner cyber abuse questionnaire in a college student sample. *Psychology of Violence*, 6(1), 156. <https://dx.doi.org/10.1037/a0039442>
- Woodlock, D., McKenzie, M., Western, D., & Harris, B. (2020). Technology as a weapon in domestic violence: Responding to digital coercive control. *Australian Social Work*, 73(3), 368–380. <https://doi.org/10.1080/0312407X.2019.1607510>
- Zinbarg, R. E., Yovel, I., Revelle, W., & McDonald, R. P. (2006). Estimating generalizability to a latent variable common to all of a scale's indicators: A comparison of estimators for ωh. *Applied Psychological Measurement*, 30(2), 121–144. <https://doi.org/10.1177/0146621605278814>
- Zvi, L. (2022). The double standard toward female and male victims of non-consensual dissemination of intimate images. *Journal of Interpersonal Violence*, 37(21–22), NP20146–NP20167. DOI: 10.1177/08862605211050109
- Zvi, L., & Shechory-Bitton, M. (2020). Police officer perceptions of non-consensual dissemination of intimate images. *Frontiers in Psychology*, 11, 2148. DOI: 10.3389/fpsyg.2020.02148

## Appendix 1 Technology-Facilitated Sexual Violence Myth Acceptance Scale Items

*Items in bold are items retained for the 12-item scale and renumbered.*

1. **If someone has posted or shared online sexual content anonymously or under a fake name, it's OK for someone else to expose their real identity. (item 1)**
2. **It's OK to reveal an online sex worker's real identity or personal information. (item 2)**
3. Those who are unfaithful in relationships should be exposed online.
4. **It's harmless fun to create a fake dating profile for someone using their contact information. (item 3)**
5. Posting someone's personal information online saying they are available for sex and/or dating can be a fun prank/joke.
6. It's OK to share personal information about someone online if they have been unfaithful in a relationship.
7. For the good of the relationship women should send nude images to their partner, even if they don't really want to.
8. Insisting that your partner send you nude photos is normal
9. **It is normal for men, especially at the beginning of the relationship, to expect their partner to send them sexy photos. (item 4)**
10. Taking pictures or a video of a friend engaging in sexual acts can be funny.
11. Viewing/sharing images of couples being intimate in public is entertaining, especially if they're celebrities.
12. Anyone should be able to express their sexuality with a chosen person without fear of it being shared online.
13. Anyone should feel safe to send nude images to a consenting person without fear they will be shared online.
14. A man's reputation is boosted among his mates if he shares nude pics of a sexual partner.
15. A woman's reputation is boosted among her friends if she shares nude pics of a sexual partner.
16. Sharing intimate photos of a partner with friends can show how proud someone is of their relationship.
17. Individuals should not be held responsible when their nude images are non-consensually shared online.
18. It's not OK to show nude images of someone else to other people, even if it's only to close friends.

19. It's the responsibility of the person receiving the images to keep them private.
20. If a partner has cheated, it's not OK to react by sharing personal or sexual images of them online.
21. If a person has sent sexts or nudes, they should expect there to be a chance someone would threaten to share them online.
22. Threatening to share intimate images of someone is not so serious if you don't actually do it.
23. Sending a nude image to someone who hasn't asked for it can be funny.
- 24. Sending nude images when flirting is normal, even if the recipient hasn't asked for them. (item 5)**
- 25. Women like to act innocent, but ultimately, they want to be sent nudes or sexy messages. (item 6)**
26. It's OK to send nudes to someone on a dating app, even if they haven't asked for any.
27. It's okay to use other people's images to create sexually explicit AI-generated images.
28. Turning off the phone, blocking someone, and/or deleting social media is an effective way to deal with online sexual harassment.
29. In most cases of online sexual harassment, it is better to block someone, rather than reporting them to the police.
30. It's complimentary when people leave comments of a sexual nature on someone's social media.
- 31. Nowadays, women react too sensitively to sexual comments they receive online. (item 7)**
- 32. It's expected that people will leave comments of a sexual nature when someone posts sexy content of themselves. (item 8)**
33. People who post sexy pictures of themselves online want others to make comments of a sexual nature.
34. There's no point in reporting unknown users for sexually inappropriate comments, it's best to ignore it.
35. It's OK to post about someone's sex life as long as the information shared is true.
36. Online threats of physical sexual assault aren't so serious if they don't have physical contact with the other person.
37. Memes making fun of someone's sexuality can be funny and shouldn't be taken seriously.
- 38. Nowadays, people are too sensitive to online jokes about sex. (item 9)**
39. Outing someone's sexual identity online is never OK, even if it's true.
- 40. It doesn't really count as sexual violence if it only happened online and not physically. (item 10)**
41. Online sexual abuse is much less serious than physical sexual abuse.
42. Victims of physical sexual violence are affected more than victims of online sexual violence.
- 43. It's enough to have the sexual content taken down, even if the person responsible isn't caught. (item 11)**
44. Most claims of online sexual violence made by women are exaggerated or false.
45. Many claims of online sexual violence are exaggerated.
46. Victims of online sexual abuse must be taken seriously.
- 47. Someone is careful and responsible with their digital device security, they won't be a victim of online sexual abuse. (item 12)**