Journal of Social Sciences Research & Policy (JSSRP)

GISSR Global Institute of Social Sciences Research

Development and Validation of Attitudes and Practices Towards Online Feminism Scale

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Cite This Article: Khalid, Z. & Naqvi, I. (2026). Development and Validation of Attitudes and Practices Towards Online Feminism Scale. *Journal of Social Sciences Research & Policy. 4 (02), 279-295.*
DOI: https://doi.org/10.71327/jssrp.42.279.295

ISSN: 3006-6557 (Online)
ISSN: 3006-6549 (Print)

Vol. 4, **No.** 2 (2026)
Pages: 279-295

Key Words:

Online feminism, scale development,

Attitudes, factor analysis, validity

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Abstract: *Current study aimeds to develop a tool for assessing attitudes towards online feminism. The study comprised of four phases. First phase extracted item pool from the obtained themes of attitude towards online feminism, which assessed attitudes and practices towards online feminism scale (OFS). Second phase evaluated items by subject matter experts to establish the face validity. Third phase carried out the development of online feminism scale (OFS) and determined its psychometric properties. Exploratory factor analysis (EFA) was conducted performed on the sample of 200 social media users that resulted in a 32-items scale comprising of three subscales; pro feminist attitudes, anti-feminist attitudes, and feminist practices. The final phase of study determined convergent, discriminant, and contrasted group validity of OFS on the sample of 300 social media users (120 men; 180 women) such that their age ranges was from 17-30 years old (M = 22.13; SD = 3.61). The OFS subjected high internal consistency for full scale (α = .94) and for subscales that are; pro feminist attitudes (α = .93), anti-feminist attitude (α = .72) and feminist practices (α = .89). OFS thus yields a competitive factorial, convergent, discriminant, and contrasted group validity that proves it as psychometrically sound instrument.*

Introduction

Globalization has made a significant political impact on women worldwide. It is particularly evident in Muslim nations, as the advocacy for women's rights coincided with the expansion of the transnational women's movement (Saigol, 2019). The unprecedented flow of information, emergence of widespread social media, and global events like “#MeToo” movement in the 2010s have reshaped contemporary Pakistani feminism (Ghadery, 2019). This strand of feminism confronts patriarchy in all its forms by bringing women’s sexuality and body politics to the center stage (Batool & Malik, 2021). In democratic countries, besides legislative, executive and judiciary branches, free media is considered as the “fourth estate”. beyond entertainment, mainstream media serves tocommunicate cultural norms and values, which tend to shape the world and legitimize the existing social structure (Akhtar et al., 2020). Thus, as media and communication permeate all areas of life, they have also substantially influenced many waves of feminism, especially third (Johnson, 2017). The use of online media is also of significance in this context (Fotopoulou, 2017) and it aims in fighting for big societal changes (Martin & Valenti, 2013).

Online feminism thus considers the use and development of such programs and interfaces that comprise the internet as well as the use of social media such as Facebook, blogs, petition sites (Eudey, 2012; Gajjala & Oh, 2012) especially to bring awareness to more people than ever before (Paasonen, 2011). The digital sphere islargely understood as a relatively safer and easier space to engage in feminist discussions than in participants' offline contexts (Keller et al., 2018).It is also evident that digital platforms serve as a platform for community voices, and help demonstrate the relevance of feminist demands in Pakistani society (Saigol & Chaudhary, 2020). In Pakistan, social media has become a platform for individuals to express their thoughts without any fear, even if they're about their attitude towards the feminism. Many are found to be promoting this concept whereas many are found against it; however majority agree to provide their stance on this emerging phenomenon. Hence, it was a need of time to study how people perceive this and somehow are relating with the online feminist activities. To study individual's attitude towards this phenomenon, the present study was aimed to conceptualize and contextualize the predictors of the recent wave of feminism on social media.

Previous evaluations have found some relevant measures relating to gender role beliefs (McHugh & Frieze, 1997), feminist attitudes (Parker 1994), and a variety of instruments have been developed to examine feminist attitudes and identity in quantitative researches (Moradi & Subich 2002). The most current of these evaluations, nevertheless, was published about 20 years ago. Scales intended to gauge feminist sentiments transform into archive records of the time (Siegel & Calogero, 2021). Indeed, during the past several decades, feminist identity, attitudes, and concepts about gender equality have altered, which has significant consequences for how these phenomena are investigated (Marecek, 2019; Siegel & Calogero, 2021). There are number of instruments related to feminism such as, Attitudes Toward Feminist Issues Scale (Brodsky et al., 1976), the Womanist Identity Attitudes Scale (Ossana, 1986), the Feminist Identity Scale (Rickard, 1987, 1989), the Feminist Identity Development Scale (Bargad & Hyde 1991), the Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994), the Feminist Identity Composite (Fischer et al., 2000), the Self-Identification as a Feminist Scale (Szymanski, 2004), and the Cardinal Beliefs of Feminists Scale (Zucker, 2004) in literature. However, no instrument has been found to measure and cover the concepts of online feminist movements and attitudes towards online feminism as it is a recent phenomenon. Therefore, it was necessary to investigate how attitudes towards online feminism play its role in development of feminist consciousness and whether it promotes gender equality in Pakistan. This explains the need to develop a psychometrically sound instrument to measure a key variable in our study. Hence, in light of previous literature, this study fills the aforementioned gap by developing attitude towards online feminism scale.

Research Objectives

1. To develop an indigenous scale for assessment of attitude and practices towards online feminism.
2. To determine the psychometric properties for attitude and practices towards online feminism scale through the factorial, contrasted group, convergent and discriminant validity of the attitude and practices towards online feminism scale.

Methodology

The scale was developed in following four phases which constituted of generation of item pool (phase 1), evaluation of items by experts along with the establishment of face validity (phase 2), determination of psychometric properties of the developed scale (phase 3), and finally the determination of convergent, discriminant, and contrasted group validity (phase 4). In phase 1, a qualitative study was conducted to generate item pool. It consisted of 8 focus group discussions

(FGDs) from young social media users and 5 interviews from feminist activists by keeping in the view the phenomenon of online feminism. Content analysis was performed to identify the scale items measuring positive and negative attitudes towards online feminism, along with another aspect measuring social media practices regarding an individual's support or opposition towards online feminist activities. The item pool consisted of a total of 63 items examining three aspects of online feminism which are positive attitude towards online feminism (24 items), negative attitudes towards online feminism (27 items), and online feminist practices (12 items).

In phase 2, items from item pool were selected based on the criteria of maximum frequency of responses and inclusion of different ideas on each aspect. Subject matter experts (PhDs in relevant academic domain) were asked to critically review the items in terms of language, relevance, overlapping, uncertainty, and face validity, which resulted in retention of 55 items covering the 3 domains highlighted in qualitative findings. The first 11 items were related to practices regarding online feminism, 22 items measured positive attitudes, and the remaining 22 items measured the negative attitude towards online feminism. These items were arranged on five-point Likert type scale, in which the scores are summed (or averaged) based on items with numbers assigned to response categories, from *1 = strongly disagree to 5 = strongly agree* (Watson, 2017; Barker et al., 2016).

In phase 3, the scale was administered via convenient sampling technique on a sample of 200 social media users from different universities. Their age ranged from 17-30 years (M = 22.13; SD = 3.61). Required assistance was provided to the participants, their consent was taken and they were asked to carefully and honestly respond to the questionnaire items. Data was collected online and as well as in-person. Participants were assured of maintenance of their anonymity and confidentiality of the information they provided and were later thanked for their participation. They filled out the 55-item attitude and practices towards online feminism scale (OFS), an 8-item feminist consciousness scale (FCS) (Duncan et al., 2021) to study feminist identity among all genders, and a 10-item misogyny scale (Rottweiler & Gill 2020) which measures misogynistic attitudes towards women along three dimensions which are Manipulative and exploitative nature of women, distrust of women, and devaluation of women. Following the scale development process, item-to-total correlation and exploratory factor analysis were performed, and alpha reliability coefficients were computed. Table 1 presents the item-to-total correlation for 55 items of OFS indicating a high internal consistency for entire scale further suggesting that oblique rotation method can be used (Costello & Osborn, 2005; Fabrigar & Wegener, 2012) to draw factor structure of OFS.

Table 1. Items to total correlation of attitude and practices towards online feminism scale (OFS) (N = 200)

Items	*r*	Items	*r*	Items	*r*
1	.69**	21	.73**	41	.22**
2	.53**	22	.70**	42	.09
3	.43**	23	.51**	43	.32**
4	.57**	24	.29**	44	.37**
5	.67**	25	.56**	45	.55**
6	.57**	26	.10	46	.38**
7	.66**	27	.72**	47	.32**
8	.40**	28	.61**	48	.32**
9	.61**	29	.51**	49	.69**

10	.46**	30	.25**	50	.59**
11	.69**	31	.44**	51	.38**
12	.59**	32	.65**	52	.74**
13	.44**	33	.60**	53	.52**
14	.48**	34	.10	54	.68**
15	.72**	35	.20**	55	.09
16	.58**	36	.45**		
17	.48**	37	.40**		
18	.68**	38	.47**		
19	.66**	39	.09		
20	.69**	40	.07		

***p ≤ .01.*

OFS was factorial validated in its initial stage of development, and the 55 items were assessed as in Principle Axis Factoring, the analysis of data structure focused on shared variance and not on sources of error that are unique to individual measurements.

Items with factor loading > .50 for OFS were selected for final version of scale (Kline, 2015). Bartlett test of sphericity and Kaiser-Meyer-Olkim (KMO) value was computed to see how fit the data for respective analysis. KMO value of sampling adequacy was .88 and Bartlett's test of sphericity values was 59991.05. The significance level was .000 and *df = 148*. All these values indicated that data is good and enough for factor analysis, hence Exploratory Factor Analysis (E F A) was carried out (results shown in table 2). The scree plot for factor matrix of 55 items of OFS was also obtained through Principal Component Analysis (PCA) by using oblique-promax rotation method (see Figure 1).

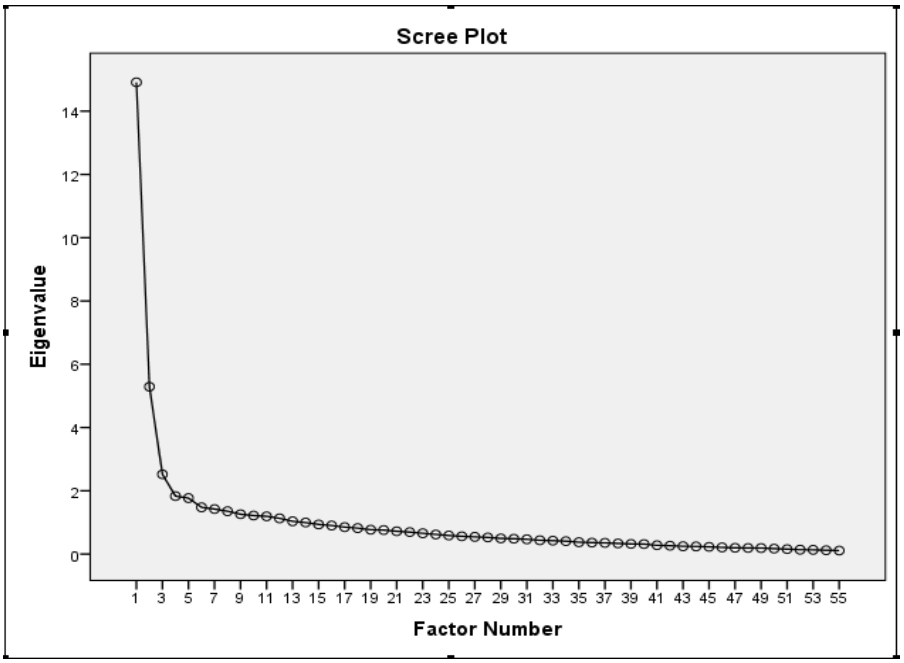

Figure 1. Scree plot showing extraction of factor of attitude and practices towards online feminism scale (OFS).

The X-axis contains principal components sorted by decreasing fraction of total variance explained by each component. The Y-axis contains fraction of total variance explained.It is clear from the figure large variance is explained by three factors after which line seems fragmented and flat showing no major factorial differentiation. Therefore solution was sustained up to three factors.

Table 2. Factor loadings for online feminism scale through principal component analysis by using oblique's promax rotation method (*N*=200)

Sr No.	Item No.	F1	F2	F3	h^2
1	CFS19	**.91**	.05	-.16	.63
2	CFS18	**.90**	-.05	-.21	.63
3	CFS16	**.82**	-.01	-.21	.49
4	CFS15	**.79**	.04	.02	.63
5	CFS22	**.78**	-.10	-.06	62
6	CFS27	**.73**	-.07	.00	.58
7	CFS17	**.72**	.11	-.14	.37
8	CFS14	**.68**	.03	-.18	.32
9	CFS21	**.67**	.05	.19	.63
10	CFS12	**.64**	-.04	-.04	.40
11	CFS51	**.61**	-.07	.17	.58
12	CFS23	**.60**	.08	.00	.34
13	CFS28	**.58**	-.05	.07	.42
14	CFS20	**.58**	.03	.22	.54
15	CFS54	**.52**	-.04	.21	.48
16	CFS49	**.50**	-.05	.24	.49
17	CFS47	-.03	**.61**	.02	.38
18	CFS36	-.07	**.62**	-.07	.42
19	CFS43	.24	**.59**	-.26	.40
20	CFS38	-.02	**.58**	-.18	.45
21	CFS44	.00	**.57**	-.06	.36
22	CFS31	-.05	**.57**	-.10	.39
23	CFS46	-.15	**.53**	.04	.34
24	CFS55	.07	**.52**	.32	.28
25	CFS42	.08	**.52**	.12	.24
26	CFS37	-.03	**.51**	-.13	.34
27	CFS6	-.17	-.01	**.85**	.56
28	CFS5	-.03	-.10	**.75**	.59
29	CFS1	.07	-.05	**.74**	.65
30	CFS3	-.10	.18	**.70**	.38
31	CFS7	.14	.09	**.69**	.59
32	CFS9	.28	.14	**.52**	.49
Eigen value		14.3	4.6	1.9	
% of variance		26.1	3.3	3.7	
Cumulative %		26.1	34.5	38.1	

Note. Item numbers above are as per arrangement of initial item pool

Table 2 depicts results of principal axis factoring by using oblique-promax rotation method to determine factor structure and validity of PRSC Scale. Thompson (2004) recommends Promax as a more desirable oblique rotation choice, as it consolidates correlated factors, strengthens loadings, and reduces indeterminacy factors (like sign reversals) often seen with direct oblimin (Fabrigar & Wegener, 2012).. Besides, the factor loadings for these items suggest very strong construct uniqueness with no

overlapping at all. Factor 1 contains 16 items and holds the Eigen values of 14.3 and explains 26.1% variance in total. Factor 2 containing 10 items (reverse) holds Eigen value of 4.6 and explain 3.3% in total variance. Factor 3 containing 6 items shows Eigen value of 1.9 and contributes 3.7% in the total variance. Table is showing total variance explained by 3 factors is 38.1%.

Finally, after EFA 32 items were finalized for OFS. Response options were 1 = *strongly disagree* to 5 = *strongly agree* with possible score range on overall (32-160). Labelling of factors was carried out with the help of PhD professionals having expertise in scale development and qualitative research. They labelled the 3 factors as "pro-feminist attitudes" i.e the positive attitudes and believes about online feminist movements, to utilize online spaces to promote feminism and gender equality, "anti-feminist attitudes" i.e one's non-supporting attitude towards online feminist movements, feminist believes, gender equality and women rights activism on online spaces, and "feminist pactices" i.e persons feminist activity towards promotion of feminism and women rights on online spaces. Reliability coefficients were also calculated (as shown in table 3).

Table 3. Psychometric properties and correlation estimates of attitude and practices towards online feminism scale and its factors (*N*=200)

	Variables	No. of items	*α*	*M*	*SD*	1	2	3	4
1	Attitudes and practices towards online feminism	32	.94	103.5	20.8	-			
2	Pro-feminist attitude	16	.93	58.0	12.1	.89**	-		
3	Anti-feminist attitude	10	.72	34.1	7.5	-.67**	-.34**	-	
4	Feminist practices	6	.89	19.1	5.7	.79**	.63**	-.38**	-

Table 3 indicates strong reliability coefficients of OFS and subscales t along with significant correlation of OFS with its subscales.

In phase 4, a sample of 300 social media users was approached to establish the factorial, discriminant and convergent validity of the newly developed scale. Data was analyzed through descriptive analyses for its suitability for inferential statistics (see table 4).

Table 4. Psychometric properties of scale for the sample of validation study (*N*=300)

							Range	
Scales	*K*	*α*	*M*	*SD*	Kurt.	Skew.	Potential	Actual
OFS	32	.94	103.5	20.63	0.341	-0.35	32-160	41-158
PRC	6	.89	19.55	5.75	-0.57	-0.23	6-30	6 -30
PFA	16	.94	58.02	12.19	0.45	-0.71	16-80	16-80
AFA	10	.87	34.01	7.54	-0.39	-0.07	10-50	12-50
FC	8	.78	26.20	5.2	-0.08	0.17	8-40	11-40
MS	10	.88	28.06	7.8	-0.06	-0.04	10-50	10-50

Note. OFS= Attitude and practices towards online feminism scale; PRC=Feminist practices; PFA=Pro-feminist attitude; AFA= Anti-feminist attitude; FC= Feminist consciousness; MS=Misogyny scale

Table 4 shows mean standard deviation, skewness, and kurtosis for three scales. The alpha reliability of the attitude and practices towards online feminism scale lies in acceptable range .94, subscales of

the scale also show reliability in acceptable ranges. The skewness values range from +1 to – 1 indicating that data is normally distributed, and parametric test can be applied, and kurtosis values are fairly in between range of ± 3.29 (Field, 2017).

To further validate OFS, Confirmatory Factor Analysis (CFA) was performed via Analysis of Moment Structure (AMOS 18). Model path diagrams and chi-square and other model fit indices values were obtained using AMOS graphics. Factor loadings for OFS subscales are presented in table 5 and model fit indices are presented in table 6.

Table 5. Factor loadings (standardized regression weight) for three factors of attitude and practices towards online feminism scale (*N*=300)

Pro-feminist attitudes		Anti-feminist attitudes		Feminist practices	
Item No.	Factor loadings	Item No.	Factor loadings	Item No.	Factor loadings
7	.61	23	.44	1	.87
8	.58	24	.76	2	.63
9	.70	25	.76	3	.89
10	.83	26	.77	4	.83
11	.52	27	.51	5	.60
12	.78	28	.59	6	.77
13	.82	29	.66		
14	.78	30	.66		
15	.87	31	.73		
16	.83	32	.58		
17	.71				
18	.69				
19	.74				
20	.60				
21	.74				
22	.76				

Second order CFA	Factor loadings
Pro-Feminist Attitudes	.80
Anti-Feminist Attitudes	.67
Feminist practices	.79

Results in table 5 indicate that all the items showed factor loadings equal to and above >.50 in each factor which was the selection criteria of items in development of scales (Kline, 2015). Moreover, results also confirm the factor structure of OFS.

Table 6. Confirmatory factor analysis of attitude and practices towards online feminism scale (indices of model fit) (*N*=300)

					Fit Indices				
Model	χ^2	*df*	*P*	CMNI /*df*	GFI	CFI	IFI	TLI	RMSEA
Model – 1 (32 Items – without error covariance)									
	1408.05	463	.00	3.04	.73	.82	.84	.82	.08
Model – 2 (32 Items – with error covariance)									
	903.05	447	.00	2.02	.85	.92	.92	.91	.05

Note. χ^2 = Chi-square Test of Exact Fit: df- Degree of Freedom, CFI = Comparative Fit Index, IFI = Incremental Fit Index, TLI = Tucker Lewis Index, GFI- Goodness of Fit, RMSEA= Root Mean Square Error of Approximation.

Table 6 shows significant results for first order CFA of OFS for 32 items without the modification indices, indicating almost acceptable modelfit for data. However, for testing the composite integrity of this scale, model 2 of second order CFA was tested by adding modification indices, which improved the values of CFI, TLI, IFI and RMSEA to present better fit model.

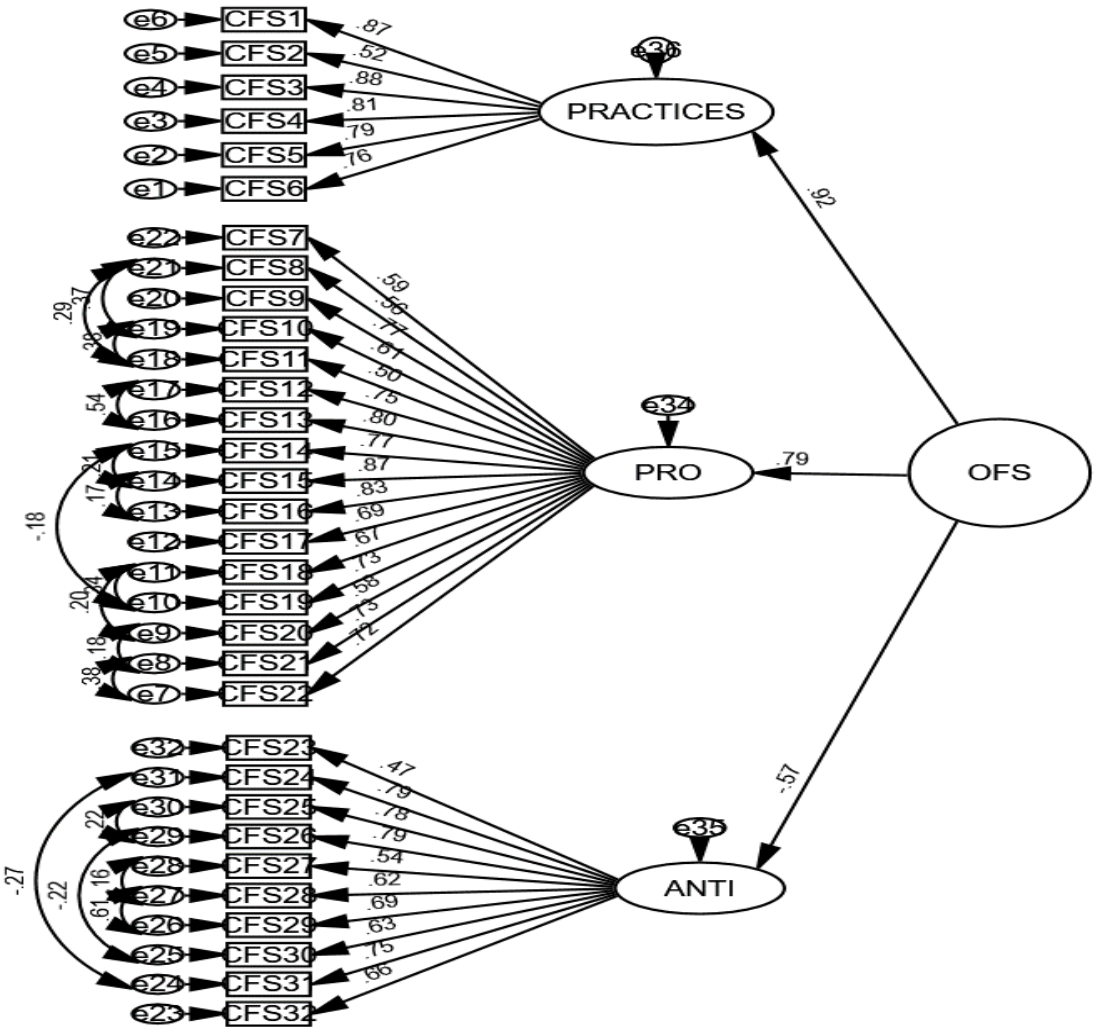

Figure 2. Measuring model of attitude and practices towards online feminism scale

Figure 2 represents the graphical picture of good fit model after modification indices. It can be seen that all the items show factorial loading > .40.

Phase 4 also aimed to establish convergent and discriminant validity of OFS To establish convergent validity, the newly developed Feminist consciousness scale (Duncan et al., 2021) was used because of its relevance to the construct of feminism. To establish discriminant validity, which tests whether measures that should be unrelated are indeed distinct, misogyny scale (Rottweiler & Gill 2020) was utilized. The results are displayed in table 7.

Table 7. Correlation between attitude and practices towards online feminism scale, feminist practices, pro-feminist attitude, anti-feminist attitude, feminist consciousness scale and misogyny scale (*N*=300)

Sr no.	Scale	M	SD	1	2	3	4	5
1	OFS	103.5	20.63	-				
2	PRC	19.55	5.75	.79**	-			
3	PFA	58.02	12.19	.89**	.63**	-		
4	AFA	34.01	7.54	-.67**	-.38**	-.34**	-	
5	FC	26.20	5.20	.68**	.64**	.58**	-.44**	-
6	MS	28.06	7.8	-.33**	-.29**	-.16**	.42**	-.36**

Note. OFS= Attitude and Practices Towards Online Feminism Scale; PRC=Feminist Practices; PFA=Pro-Feminist Attitude; AFA= Anti-Feminist Attitude; FC= Feminist consciousness Scale; MS=Misogynist Attitude Scale

***p < .01,*

Table 7 provides the conceptualization of the positive relation between similar construct i.e feminist consciousness and OFS along with subscales. Similarly, negative relationship of misogyny scale with OFS along with the subscales provides the evidence of discriminant validity.

Another agenda of phase 4 was to look for Contrasted group validity of OFS**.** This was measured by taking into account different sample group differentiating on any single construct reality. Gender was taken as measure of Contrasted group validity in the present research. Table 8 displays the results.

Table 8

Comparison along gender on Attitude and Practices Towards Online Feminism Scale and its subscale (N=300)

	Gender								
Scales	Men (*n*=120)		Women (*n*=180)				95% *CI*		
	M	*SD*	*M*	*SD*	*t(df)*	*p*	*LL*	*UL*	Cohen's d
OFS	99.12	19.26	106.49	21.00	-3.96	.000	-11.02	-3.72	.31
PRC	18.63	5.47	20.15	5.86	-2.91	.004	-2.55	-.49	.26
PFA	55.59	12.12	59.62	11.98	-3.65	.000	-6.19	-1.86	.33
AFA	35.13	6.79	33.28	7.92	2.70	.007	.50	3.20	.25

Note. OFS= Attitude and Practices Towards Online Feminism Scale; PRC=Feminist Practices; PFA=Pro-Feminist Attitude; AFA= Anti-Feminist Attitude.

Table 8 indicated group differences on OFS and its subscales via significant differences among male and female group, where females are showing more positive attitudes towards feminism as compared to males. On feminist practices and pro feminist attitude mean scores were higher for females and low on antifeminist attitudes. These significant differences among male and female are indicating the contrasted group validity.

Discussion

During the past several decades, feminist identity, attitudes, and concepts about gender equality have altered, which has brought significant consequences for how we investigate these phenomena (Siegel & Calogero, 2021). Contemporary social movements have inspired activism on behalf of women and renewed interest in feminism, which some have termed a "fourth wave" of feminist activism (Rivers, 2017). Today, with the increasing popularity of social media, social media activism is gaining popularity.

There are various social media platforms like WhatsApp, Facebook, Twitter, Instagram, where a piece of information can become trending in no time (Rani, 2019).

Measurement of attitudes remains a topic of keen interest in the social sciences and related fields (Hair et al., 2019). There are number of instruments related to feminism such as, attitudes toward feminist issues scale, womanist identity attitudes scale, feminist identity scale, feminist identity development scale, attitudes toward feminism and the women's movement scale, the feminist identity composite, self-identification as a feminist scale, and the cardinal beliefs of feminists scale which were basically measuring the attitudes towards feminism (Bargad & Hyde 1991; Brodsky et al., 1976; Fassinger, 1994; Fischer et al., 2000; Rickard, 1987, 1989; Ossana, 1986; Szymanski, 2004; Zucker, 2004). However, there remained a gap in measuring the attitudes and practices towards online feminism, hence the present study revolved around qualitative exploration of the phenomenon with the intention to develop and validate it in the form of a new construct.

The present scale, after its development, fulfilled gap by providing a sound psychometrical measure attitudes towards the new fourth feminism that is online in nature.

The Literature also suggested that the factors covered by the newly developed scale were enough to measure the required construct as attitude and practices towards online feminism scale was measuring three components, feminist practices, pro feminist attitude and anti-feminist attitudes towards the online feminism and feminist activities.

Attitude towards online feminism scale was developed in four phases, each phase holdings significance towards determining the psychometric of the scale. In phase 1, after an extensive qualitative exploration of the phenomenon (via FGDs and interviews), an item pool was generated that constituted of 63 items for empirical testing. In phase 2, these items were critically reviewed with the help of subject matter experts, which resulted in elimination of a few items resulting in a remaining of 55 items. In phase 3, These items were administered on the sample of 200 social media users, and psychometric properties of the instrument were established. Later in phase 4, empirical evaluation and validity of scale factor analysis was applied. Response categories for newly developed scale were five point Likert scale as in a continuous scale, the scores are summed (or averaged) based on items with numbers assigned to response categories as measures of attitude can be well defined through this technique after phenomenon have been indigenously explored (Watson, 2017; Barker et al., 2016; Hair et al., 2019).

Firstly, for scale development item-to-total correlation and exploratory factor analysis were performed for scale validation. Factor analysis according to Kim (2013) is a statistical method to find co-relation and commonness among items within factors and then among factors within scale.. The given item-to-total correlation provide idea about interrelation between items suggesting that oblique rotation method can be used (Costello & Osborn, 2005; Fabrigar & Wegener, 2012) to draw factor structure of OFS scale. Exploratory factor analysis was performed to identify the factors on a sample of 200 which was adequate (DeVellis, 2017).

Factorial validation in this initial stage of development of 55 item scale was performed via Principle Axis Factoring through oblique rotation, as in this, the analysis of data structure is focused on shared variance and not on sources of error that are unique to individual measurements (Field, 2009; Kline, 2015). The factorial analysis resulted in 32 items being loaded on three factors measuring three dimensions of the construct (attitude towards online feminism).

Furthermore, for both scales Eigen value of each factor was strong and scree plot represented those values are higher than 1.

The Final version of attitude and practices towards online feminism scale (OFS) constitutes three factors which were labeled through expert review as “pro feminist attitude”, “Anti-feminist attitude” and “feminist practices”. Altogether, the scale provides an opportunity to access the attitudes and practices towards online feminism among social media users. Based on the results of factor analysis, 32 items were finally selected in OFS scale. Items of factor anti-feminist attitudes were reverse coded to get cumulative score. The score range suggested that higher the score obtained by the subjects indicate supporting positive attitude towards online feminism.

Alpha and omegas are two popular methods of composite reliability (Peters, 2014; Padilla & Divers, 2015). Newly developed OFS yields a good internal consistency. Dunn et al. (2013) suggest that if a researcher is sure that the scale had fulfilled the unidimensional principle, he might use alpha so for OFS scale we calculated alpha reliability which was significantly good .92 as the threshold coefficient of composite reliability higher than 0.70 is reliable (Viladrich et al ., 2017). Alpha coefficients in the table 4 show that all the scales used in this study are internally consistent.

To establish the convergent validity of the newly developed scale the feminist conscious scale (Duncan et al., 2021) was used because of its relevance to the construct of feminism.

Evidence from the results of Table 7 reflects that newly developed scale (OFS) and it subscales show desired relationship within scale. (Engellant et al., 2016; Wang et al., 2015). As all constructs exceeded the threshold value of >.50, it is concluded that they could measure the latent variables, hence fulfilling the convergent validity criteria (Cohen, 1992; Kline, 2015).

Table 7 also shows a significant negative correlation between OFS and misogyny scale (p >.05) which is an evidence of discriminant validity. Discriminant validity is established by correlating one construct to another as the correlation value of both constructs is lower than 0.85, it means that the discriminant validity exists (Hair et al., 2019).

Contrasted group validity was established through gender group differences on OFS and its subscales, the results of which are shown Table 8. Significant group differences revealed that females showed more positive attitudes towards feminism as compared to males, with medium effect, size ranges between .30 to .28 (Cohen, 1992).

Conclusion

Overall, the findings of this study are encouraging in terms of psychometric properties of indigenously developed scale i.e, Attitude and Practices Towards Online Feminism Scale (OFS). The study has been able to establish and validate OFS which is a three factor scale measuring pro feminist attitude, anti-feminist attitudes and feminist practices. The newly developed instrument is convincing in terms of measuring the desired construct. Furthermore, the process of validation has shown construct validity of the instrument Discriminant and convergent validity were also successfully established between OFS and, feminist consciousness scale, and misogyny scale. Finally, contrasted group validity was established based on gender differences which showed significant differences. Hence, it is concluded that OFS is a psychometrically sound instrument e which can be utilized for further use.

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Appendix Attitude and Practices Towards Online Feminism Scale

Instructions: This scale is design to measure knowledge and attitude towards Cyberfeminism. Following are the statements that describe feminism on cyber-spaces (social media) here social media includes all the apps that you use such as Facebook, Twitter, Instagram, and WhatsApp. For each statement, choose the one option that best describes your opinion. Please read each item and then state how much you are strongly agree to strongly disagree with the statements.

S/N	Items	Strongly disagree	Disagree	Neither agree/nor disagree	Agree	Strongly agree
1	I like and share posts related to feminism on social media.					
2	I like and share posts related to female harassment/rape on social media.					
3	I follow pages related to feminism on social media.					
4	I write posts related to feminism on social media.					
5	I share social media posts related to feminism with my friends to make them aware.					
6	I like and share posts related to women rights on social media to support feminism.					
7	People who have been victim of sexual harassment take part in these movements because they do not want others to go through the same experience.					
8	Social media is a suitable platform for women to overcome the oppression that					

	they are facing.					
9	Online feminist movements provide opportunity for women to open up about matters they cannot discuss with friends and family.					
10	Social media can be utilize to overcome gender inequality.					
11	Women can utilize technology and cyberspaces to overcome oppression					
12	Online feminist movements give confidence to women to speak for themselves.					
13	Posts on social media related to feminism give confidence to women to speak for themselves.					
14	There is a need of online feminist movement to create awareness about women rights.					
15	Promoting feminism on social media can bring positive change in society.					
16	Online feminist movements are creating awareness about women rights.					
17	People are more aware of feminism than they were before because of social media.					
18	Online feminist movement play an important role in providing justice to the victims of sexual harassments and rape.					
19	Online feminist movements are promoting gender equality in society.					
20	Online feminist movements promote justice to the victims of harassment/rape cases.					
21	Social media pages related to feminism are spreading awareness about women rights.					
22	Posts related to feminism are spreading awareness related to women rights.					
23	Social media posts related to feminism are creating gender hostility (Hate).					

24	Online feminist movements like 'me too' are western ideas that is not working in our society.					
25	Social media bloggers are promoting feminist movements for their personal benefits.					
26	Bloggers who are promoting feminism on cyber spaces are not representing the real issues of women.					
27	Online feminist movements are not being supported here because they are too radical and anti-men.					
28	Online feminist movements are limited to elite class and not representing the general women issues of our society.					
29	Online feminist movements are only for liberals/elite class.					
30	People who take part in online feminist movements are not satisfied with their culture and religious values.					
31	Bloggers supports online feminist movements to gain popularity.					
32	People take part in online feminist movements to seek attention.					