

## Development and Psychometric Properties of Adult Ostracism Scale

Nimra Riasat<sup>1</sup>, Zaqia Bano<sup>2</sup>

<sup>1</sup>Department of Psychology, University of Gujrat Pakistan.

<sup>2</sup>Department of Psychology, National University of Medical Sciences (NUMS), Rawalpindi

\* Correspondence: Nimra Riasat, Email: [nimrariasat1996@gmail.com](mailto:nimrariasat1996@gmail.com)

**Citation** | Riasat. N, Bano. Z, “Development and Psychometric Properties of Adult Ostracism Scale”. Int. J. Innov. Sci. Technol., Special Issue pp. 62-69, 2022.

**Received** | July 17, 2022; **Revised** | Aug 24, 2022; **Accepted** | Aug 29, 2022; **Published** | Sep 03, 2022.

The main objective of the current research was the development of the ostracism scale in the Urdu language to shed the light on this invisible harassment and abuse which is the most ignored part of society yet a very common method to exclude people from social groups. A total of 40 items developed through an adequate process with the help of William’s need and threat model. A sample of 200 participants in the age range of 18 to 40 years was selected for data collection through a simple random sampling technique. After analysis, the sample adequacy was 0.915 with 4 factors including self-esteem, control, meaningful existence and belonging which are the four fundamental needs of humans. CFA is .903 with the removal of 18 items in the scale and sample adequacy of the remaining 22 items of the scale is .924 with reliability of  $\alpha = .937$ . 7 items subscale “self-esteem” reliability value is  $\alpha = .866$ , 6 items subscale “control” reliability is 8.25, 5 items subscale “meaningful existence” reliability value is  $\alpha = 844$  and 4 items subscale “belonging” reliability value is  $\alpha = .704$ . In Pakistani culture, it is very common to exclude someone without giving attention to the psychological factors the excluded person will face. This research will provide a direction to further research and awareness about ostracism which is rarely known by individuals but yet faces every day.

**Keywords:** Ostracism; Self-esteem; Control; Meaningful existence and Belonging

### Acknowledgment.

The author would like to express special thanks of gratitude to her supervisor Dr. Zaqia Bano who contribute a lot to the research process.

### Conflict of interest:

We declare no conflict of interest for publishing this manuscript in IJIST.

### Project details.

Nil

### Author’s Contribution.

All authors contributed equally to the designing, analyzing, and interpretation of data.

## Introduction

Everyone, at some point in their lives, plays the part of an ostracized and on occasion, is the object of ostracism in different relationships such as families, close friends or work settings [1]. Exclusion from social groups can be a normal occurrence in peer relationships from childhood to adulthood. Ostracism may be perceived in a variety of ways: as the total exclusion of an individual or group as dismissing an individual or group [2].

The word ostracism dates from the fifth century B.C. and it comes from the Greek Ostrakismos, which denotes a tradition in ancient Greece in which citizens voted to remove former dictators from the dictatorship as a means of retribution [3]. Citizens would write the names of such people on ostraca, broken clay pottery and the people who received the most votes would be sentenced to years of isolation in exile. However, the act of excluding undesirable and unwanted persons from a social community or fellowship is universal. Williams [4] noted that various forms of ostracism have been documented in human interactions among tribespeople around the world, among particular groups across a variety of assets, among children in school, in close relationships, among a variety of animal species, including primates, lions and wolves. The fact that ostracism is universal suggests that it can serve adaptive tenacities in natural selection, suggesting that it is a widespread and strong phenomenon [5]. Since social animals like humans have evolved to rely on close cooperation in small groups and communities for persistence and reproduction, the capacity to omit members who do not contribute or hinder the group's functioning is likely to have been naturally selected. Furthermore, even though ostracism does not take the form of complete exclusion from the community, actions such as ignoring, rejection and threats of exclusion may be used as correctives [6].

A common phenomenon across a broad range of social circumstances has been noted: the feeling of being invisible, of being excluded and discarded from others' social experiences of being seen as though one did not belong or even exist [7]. Such interactions are occasionally categorized as ostracism, although they can also be found in a wide range of other words and expressions. Acts and experiences that are likely to indicate variations and manifestations of the ostracism phenomenon include "shunning," "avoiding," "estrangement," "exiling," "expulsion," "banishment," "ignoring," "giving someone the silent treatment," "freezing someone out" and "giving the cold shoulder" in everyday language [8]. The scholarly literature, on the other hand reflects this diversity in terms. Shunning, for example is described as "the deliberate and systematic exclusion of a person who was once a member of the party" [9].

Ostracism has been used to describe an explicit statement that one is rejected when attempting to form and maintain at least a temporary alliance or partnership with a group or an entity [10], whereas social exclusion describes situations in which the subject is denied valued social interaction with others [11]. Significantly, these phrases appear to relate to the same basic event because they are frequently employed to denote "a general phase of social rejection or exclusion" [12]. Exclusion, shunning, ignoring and rejecting all have the fundamental trait of excluding socially proper conduct, leading to a sense of not being included, acknowledged or accepted by those targeted, despite semantic and psychological variations between these terms [13]. As a result, we collectively mark such interactions as ostracism which can be described as both omissions and outright acts of social exclusion.

Businesses, along with a variety of other species, races and demographic groups, are frequently impacted by ostracism [14]. Colleagues can remain mute in the face of organizational members who conduct in ways that are not socially acceptable by avoiding contact, declining to engage in conversation or being unresponsive. Workplace ostracism is a unique type of organizational interpersonal abuse since it entails withholding attention and care rather than committing unwelcome attention and treatment [15].

The goal of the current study is to create a trustworthy scale to quantify ostracism in Pakistani culture. This study will look at how ostracism hurts people's psychological and physical health.

### **Material and Methods**

A sample of 200 participants (both male & female with an age range of 18 to 40) were randomly selected from different areas of Gujrat and Gujranwala.

#### **Step I: Generation of Item Pool**

Items were generated according to the need and threat model of Williams. Ostracism poses an instant threat to the four fundamental human needs for belonging, self-esteem, control, meaningful existence and surges its damaging effect which is well documented [16]. 10 items of each fundamental need were generated making a total of 40 items. To generate items data was collected through literature review, books, previous scales and articles relevant to Pakistani culture. Interviews and observation were also used to learn cultural behavior and views about ostracism.

#### **Step II: Expert's Evaluation**

A validity evaluation of content is necessary because inferences are made from the final items of the scale. The contents of the items should be considered trustworthy to all resulting inferences. The researcher looks for other opinions on operational items to ensure the validity of the content. The opinions may include those of expert judges (development scale experts or target population judges) or potential scale users, enabling researchers to ensure the appropriate consistency of the hypothesis produced in the research [17]. Experienced doctors with the expertise of leading research in the area of scale development were asked to evaluate the items according to need and threat model and suggest which item needs modification or removal. The panel of experts consisted of 5 PhD in the psychology department. 14 items were modified and a Likert scale of 5 points ranging of 1 to 5 was decided.

#### **Procedure**

After receiving permission from the institutes, the data was collected from the participants. The participants were educated about the importance of the test and how well their information and identity will be secure in the research. After getting permission the participants were requested to fill out the questionnaire. The questionnaire used in this study was a self-reported measure. From each respondent, the informed consent and research form were taken. Information about the significance objectives of the research study was given to individuals.

#### **Result and discussion.**

##### **Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA)**

After item correlation, exploratory factor analysis was done on the data of 200 people to evaluate if the items on the scale were valid and significant. The observed variables are referred to as factor indicators and the constant latent variables are referred to as factors. It was used to figure out how many continuous latent variables would be needed to explain the correlation. The sample adequacy was checked by using Kaiser-Meyer-Olkin [18] measure of Sampling Adequacy and Bartlett's test of Sphericity [19]. Kaiser gave us an index of factorial simplicity. According to Kaiser the values which are above .9 are marvelous, .8 meritorious, .5 miserable and below .5 are unaccepted. The sampling is adequate or sufficient if the value of Kaiser Meyer Olkin (KMO) is larger than 0.5. The value of KMO is 0.915 (shown in table 2) which is greater than 0.5 so we can say that the data is adequate. Further, the values of Bartlett's test of Sphericity were significant at  $p < .001$ . It means that the data is normal and can be accepted for the further analysis. Or the further analysis can be done on the data. It also means, the data does not have any identity matrix.

**Table 1.** Pearson product-moment correlation coefficient of 40 Items of Ostracism Scale (N=200)

Item No	R	Item No	R	Item No	R	Item No	R
1	.610**	11	.627**	21	.714**	31	.703**
2	.454**	12	.555**	22	.650**	32	.728**
3	.481**	13	.398**	23	.748**	33	.672**
4	.627**	14	.502**	24	.696**	34	.715**
5	.565**	15	.601**	25	.711**	35	.642**
6	.433**	16	.716**	26	.544**	36	.633**
7	.470**	17	.492**	27	.503**	37	.646**
8	.720**	18	.541**	28	.681**	38	.761**
9	.632**	19	.613**	29	.636**	39	.771**
10	.587**	20	.672**	30	.654**	40	.600**

**Table 2.** Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity for 22 items of ostracism Scale

	KMO	Bartlett's Test	
		Chi-Square	Df Sig
OS Scale	.924	2277.594	231 .000

Note: P < .001, OS = Ostracism Scale

**Table 3.** Factor loading of 22 items after Varimax Rotation (N=200)

Sr No	Item No	Self-Esteem	Control	Meaningful Existence	Belonging
1	09	.690			
2	11	.663			
3	16	.576			
4	21	.609			
5	25	.692			
6	33	.571			
7	34	.603			
8	01		.604		
9	04		.705		
10	05		.627		
11	08		.583		
12	20		.492		
13	23		.485		
14	27			.676	
15	31			.579	
16	32			.559	
17	38			.638	
18	39			.623	
19	10				.470
20	12				.676
21	13				.735
22	26				.534

CFA was run to confirm the findings of exploratory factor analysis. Confirmatory factor analysis was done by using AMOS graphics7. 4 factors were run through Confirmatory factor analysis. The value of RMSEA (Root Mean Square Error of Approximation) is .072 which shows that the model is fit [20]. The value of CMIN/DF is 1.965 which shows the fitness of the default model. To increase the value of CFI modification indices were applied.

By further analyzing the modification indices, the regression weights were observed and 18 problematic items were removed. After that CFA was run the value of the Comparative index was .903 which shows the confirmation of the model. The value of GFI was .843 which tells us the goodness of the scale. GFI checks the magnitude of discrepancy between a sample and fitted covariance matrices. If the value of GFI, CFI and IFI is greater than .90 then the model is adequately fit [21]. In this case, the values of CFI and IFI are greater than .90 so the model is adequately fit (shown in Table 4)

**Table 4.** Model Fit Indices of Confirmatory Factor Analysis with 22 items (N= 200)

P Value	CMIN/DF	GFI	CFI	RMSEA	TLI	RMR
.000	1.965	.843	.903	.072	.889	.075

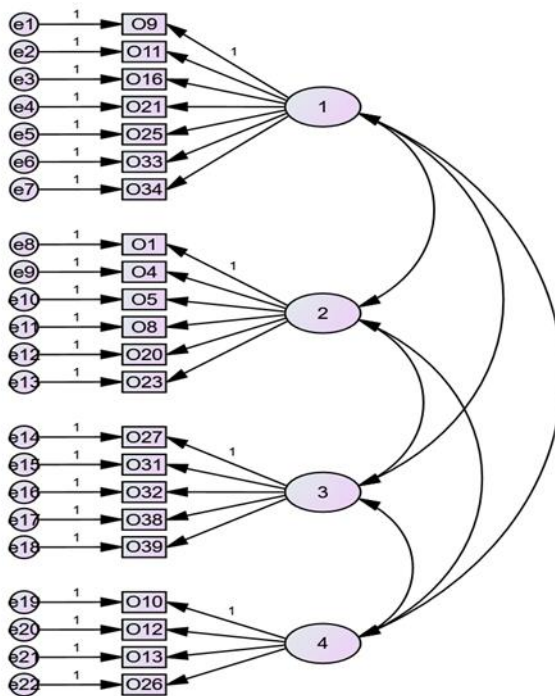


Figure 1. Reliability analysis reveals that scale is reliable to use in further research.

**Table 5.** Cronbach Alpha of Subscales of Ostracism Scale (N=200)

Subscale	Total Items	Cronbach's Alpha
Self-esteem	7	.86
Control	6	.82
Meaningful existence	5	.84
Belonging	4	.70

**Table 6.** Reliability Analysis of Ostracism Scale in Urdu (N=200)

Scale	Cronbach's Alpha	Total items
Ostracism	.93	22

**Discussion**

The basic objective of the current study was to develop a valid measure of ostracism. For this purpose, William's need and threat model was used to create items. Williams states that social discrimination threatens four basic needs (self-esteem, meaningful existence, belonging and control) and motivates the objectives of restoring such needs [22]. The idea that people strive to validate their self-esteem by acting in a way that is compatible with those self-perceptions has been invoked as a major mediating mechanism explaining the impacts of ostracism on behaviors [23].



A sample of 200 participants in the age range of 18 to 40 was used for data collection through simple random sampling. After analysis, the sample adequacy was 0.915 with 4 factors including self-esteem, control, meaningful existence and belonging which are the four fundamental needs of humans. Tavakol and Dennick [24] stated that for the adequacy of the data the value of Cronbach's alpha should be between 0 to 1. In this case, the value is 0.915 so the sample is highly adequate. CFA is .903 with the removal of 18 items in the scale, and sample adequacy of the remaining 22 items of the scale is .924 with reliability of  $\alpha = .937$ . GFI checks the magnitude of the difference between a sample and fitted covariance matrices. If the value of GFI, CFI and IFI is greater than .90 then the model is adequately fit, in this case, the values of CFI and IFI are greater than .90 so the model is adequately fit. 7 items subscale "self-esteem" reliability value is  $\alpha = .866$ , 6 items subscale "control" reliability is 0.825, 5 items subscale "meaningful existence" reliability value is  $\alpha = .844$  and 4 items subscale "belonging" reliability value is  $\alpha = .704$ .

However, the scale depicts ostracism occurring in working place or social gatherings as well as ostracism occurring in online social media settings. The temporal need-threat model postulates that responses to exclusion result in both delayed need satisfaction and immediate, universal sensations of negative emotions [25], [26]. A study was conducted using a novel computer program called Ostracism Online [27]. Ostracism had a detrimental impact on emotional states, belongingness, self-esteem and meaningful existence in both investigations, but not control. Additionally, using Facebook as a coping mechanism after exclusion had no appreciable effect on the need for restitution.

The findings of different research show that both types of exclusion endangered people's desire for control, self-worth, belonging and meaningful existence [28]. Rejected users were more endangered in their demands for belonging and self-esteem than ostracized users, but they were also equally threatened in their needs for meaningful existence and control. Ostracized users on social media displayed more prosocial activity, whereas rejected users tended to withdraw from social relationships [29] but when participants faced social exclusion, grandiose narcissism appeared to give them a sense of control over the situation and shield them from risks to their self-esteem [30].

## Conclusion

To shed light on such a significant issue is the need for a society where people normalize such toxic behavior of ostracism as a part of society which is silently killing individual mental health and peace. To highlight this issue ostracism scale was developed. A scale to measure ostracism in the Urdu language is competently established with 22 questions and four sub-scales.

## Recommendation and Limitation

There is some limitation in the study that may reduce its effectiveness. Although the value of reliability and validity of the scale is very high. The sample size was small in this study. This test is not adequate to represent the true status as a result. That's why it is not possible to generalize the results to all Pakistani people. In this sense, a further higher-order analysis could be carried out to increase the study's generalization. Another drawback of the current research was the use of self-report scales that could have led to monitoring or reporting due to the nature of the ostracism they experienced. It is therefore recommended that focus group and interview techniques be performed in future research as well as self-report questionnaires to gather more wide-ranging data on the degree and nature of ostracism.

## References

- [1] K. D. Williams and L. Zadro, "Ostracism: the indiscriminate early detection system," *Unim. śląski*, pp. 19–34, 2005, doi: 10.2/JQUERY.MIN.JS.
- [2] O. Ybarra *et al.*, "The social prediction dynamic: A legacy of cognition and mixed

- motives,” *Evol. Soc. Mind Evol. Psychol. Soc. Cogn.*, no. April, pp. 263–277, 2011, doi: 10.4324/9780203837788.
- [3] R. Zippelius, “Exclusion and shunning as legal and social sanctions,” *Ethol. Sociobiol.*, vol. 7, no. 3–4, pp. 159–166, Jan. 1986, doi: 10.1016/0162-3095(86)90044-0.
- [4] K. D. Williams, “Ostracism: The Kiss of Social Death,” *Soc. Personal. Psychol. Compass*, vol. 1, no. 1, pp. 236–247, Nov. 2007, doi: 10.1111/J.1751-9004.2007.00004.X.
- [5] K. D. Williams and L. Zadro, “Ostracism: On Being Ignored, Excluded, and Rejected,” *Interpers. Rejection*, Mar. 2012, doi: 10.1093/ACPROF:OSO/9780195130157.003.0002.
- [6] A. R. Carter-Sowell, Z. Chen, and K. D. Williams, “Ostracism increases social susceptibility,” *Soc. Influ.*, vol. 3, no. 3, pp. 143–153, 2008, doi: 10.1080/15534510802204868.
- [7] K. D. Williams, “Ostracism,” <https://doi.org/10.1146/annurev.psych.58.110405.085641>, vol. 58, pp. 425–452, Dec. 2006, doi: 10.1146/ANNUREV.PSYCH.58.110405.085641.
- [8] K. D. Williams, “Social Ostracism,” *Aversive Interpers. Behav.*, pp. 133–170, 1997, doi: 10.1007/978-1-4757-9354-3\_7.
- [9] R. S. Anderson, “Self-Compassion versus Self-Esteem for an Experience of Ostracism,” 2019, [Online]. Available: <https://digitalcommons.du.edu/etd/1643>
- [10] G. C. Blackhart, B. C. Nelson, M. L. Knowles, and R. F. Baumeister, “Rejection elicits emotional reactions but neither causes immediate distress nor lowers self-esteem: A meta-analytic review of 192 studies on social exclusion,” *Personal. Soc. Psychol. Rev.*, vol. 13, no. 4, pp. 269–309, 2009, doi: 10.1177/1088868309346065.
- [11] J. M. Twenge, R. F. Baumeister, D. M. Tice, and T. S. Stucke, “If you can’t join them, beat them: Effects of social exclusion on aggressive behavior,” *J. Pers. Soc. Psychol.*, vol. 81, no. 6, pp. 1058–1069, 2001, doi: 10.1037/0022-3514.81.6.1058.
- [12] M. Gruter and R. D. Masters, “Ostracism as a social and biological phenomenon: An introduction,” *Ethol. Sociobiol.*, vol. 7, no. 3–4, pp. 149–158, 1986, doi: 10.1016/0162-3095(86)90043-9.
- [13] S. L. Robinson, J. O’Reilly, and W. Wang, “Invisible at Work: An Integrated Model of Workplace Ostracism,” <https://doi.org/10.1177/0149206312466141>, vol. 39, no. 1, pp. 203–231, Nov. 2012, doi: 10.1177/0149206312466141.
- [14] D. Balliet and D. L. Ferris, “Ostracism and prosocial behavior: A social dilemma perspective,” *Organ. Behav. Hum. Decis. Process.*, vol. 120, no. 2, pp. 298–308, Mar. 2013, doi: 10.1016/J.OBHDP.2012.04.004.
- [15] D. L. Ferris, M. Chen, and S. Lim, “Comparing and Contrasting Workplace Ostracism and Incivility,” *Annu. Rev. Organ. Psychol. Organ. Behav.*, vol. 4, pp. 315–338, 2017, doi: 10.1146/ANNUREV-ORGPSYCH-032516-113223.
- [16] K. D. Williams, “Chapter 6 Ostracism: A Temporal Need-Threat Model,” *Adv. Exp. Soc. Psychol.*, vol. 41, pp. 275–314, Jan. 2009, doi: 10.1016/S0065-2601(08)00406-1.
- [17] G. W. Lambie, A. J. Blount, and P. R. Mullen, “Establishing content-oriented evidence for psychological assessments,” *Meas. Eval. Couns. Dev.*, vol. 50, no. 4, pp. 210–216, 2017, doi: 10.1080/07481756.2017.1336930.
- [18] H. F. Kaiser, “An index of factorial simplicity,” *Psychom. 1974 391*, vol. 39, no. 1, pp. 31–36, Mar. 1974, doi: 10.1007/BF02291575.
- [19] S. Tobias and J. E. Carlson, “BRIEF REPORT: BARTLETT’S TEST OF SPHERICITY AND CHANCE FINDINGS IN FACTOR ANALYSIS,” *Multivariate Behav. Res.*, vol. 4, no. 3, pp. 375–377, Jul. 1969, doi: 10.1207/S15327906MBR0403\_8.
- [20] J. Bradley, “Structural Equation Modeling : Concepts , Issues and Applications by

- Rick H. Hoyle Review by: Karen Finlay,” vol. 66, no. 2, pp. 226–228, 2014, Accessed: Aug. 22, 2022. [Online]. Available: [https://books.google.com/books/about/Structural\\_Equation\\_Modeling.html?id=zFMYJqVeQUEC](https://books.google.com/books/about/Structural_Equation_Modeling.html?id=zFMYJqVeQUEC)
- [21] L. T. Hu and P. M. Bentler, “Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives,” <https://doi.org/10.1080/10705519909540118>, vol. 6, no. 1, pp. 1–55, 2009, doi: 10.1080/10705519909540118.
- [22] C. H. J. Hartgerink, I. Van Beest, J. M. Wicherts, and K. D. Williams, “The ordinal effects of ostracism: a meta-analysis of 120 Cyberball studies,” *PLoS One*, vol. 10, no. 5, May 2015, doi: 10.1371/JOURNAL.PONE.0127002.
- [23] D. L. Ferris, H. Lian, D. J. Brown, and R. Morrison, “Ostracism, self-esteem, and job performance: When do we self-verify and when do we self-enhance?,” *Acad. Manag. J.*, vol. 58, no. 1, pp. 279–297, Feb. 2015, doi: 10.5465/AMJ.2011.0347.
- [24] M. Tavakol and R. Dennick, “Making sense of Cronbach’s alpha,” *Int. J. Med. Educ.*, vol. 2, p. 53, Jun. 2011, doi: 10.5116/IJME.4DFB.8DFD.
- [25] D. Ren, E. D. Wesselmann, and K. D. Williams, “Hurt people hurt people: ostracism and aggression,” *Curr. Opin. Psychol.*, vol. 19, pp. 34–38, Feb. 2018, doi: 10.1016/J.COPSYC.2017.03.026.
- [26] F. M. Schneider, B. Zwillich, M. J. Bindl, F. R. Hopp, S. Reich, and P. Vorderer, “Social media ostracism: The effects of being excluded online,” *Comput. Human Behav.*, vol. 73, no. March 2019, pp. 385–393, 2017, doi: 10.1016/j.chb.2017.03.052.
- [27] W. Wolf, A. Levordashka, J. R. Ruff, S. Kraaijeveld, J. M. Lueckmann, and K. D. Williams, “Ostracism Online: A social media ostracism paradigm,” *Behav. Res. Methods*, vol. 47, no. 2, pp. 361–373, Jun. 2015, doi: 10.3758/S13428-014-0475-X.
- [28] M. Dvir, J. R. Kelly, and K. D. Williams, “Is inclusion a valid control for ostracism?,” <https://doi.org/10.1080/00224545.2018.1460301>, vol. 159, no. 1, pp. 106–111, Jan. 2018, doi: 10.1080/00224545.2018.1460301.
- [29] S. Lutz and F. M. Schneider, “Is receiving Dislikes in social media still better than being ignored? The effects of ostracism and rejection on need threat and coping responses online,” *Media Psychol.*, vol. 24, no. 6, pp. 741–765, 2021, doi: 10.1080/15213269.2020.1799409.
- [30] A. Fossati, A. Somma, and S. Borroni, “The multidimensionality of pathological narcissism from the perspective of social ostracism: A study in a sample of Italian University students,” *Pers. Individ. Dif.*, vol. 116, pp. 309–313, Oct. 2017, doi: 10.1016/J.PAID.2017.05.009.



Copyright © by authors and 50Sea. This work is licensed under Creative Commons Attribution 4.0 International License.