

**DEVELOPMENT OF PUBLIC PERCEPTION OF POLICE
QUESTIONNAIRE-URDU**

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ABSTRACT

The present study was conducted to develop a measure to assess public perception of the police in national context that will be used to understand different dimensions of public perception of the police. To develop the questionnaire, guidelines recommended by DeVellis (2003) were used. The final formatted questionnaire was administered on 750 (378(50.4%) females) community sample representing all districts of Gilgit-Baltistan (GB) except Diamer. Exploratory factor analysis was performed after fulfilling its preconditions. Exploratory factor analysis on 691 (342 (49.5%) females) participants with varimax rotation produced the 13-item Public Perception of the Police Questionnaire-Urdu (PPPQ-U) with three dimensions; public confidence in police, monitoring of police performance, and respect of human rights. Confirmatory factor analysis was applied to establish psychometric properties of two PPPQ-U dimensions and third one was not included because its Cronbach's alpha was below acceptable level. Results showed acceptable goodness-of-fit and internal reliability. It is recommended to use the PPPQ-U as linguistically accurate and psychometrically sound instrument to assess different dimensions of public perception of the police to select suitable interventions for improvisation of police performance.

Keywords: *Police, Public, Perception, Confidence, Monitoring Performance*

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INTRODUCTION

Police needs voluntary support from the general public for effective functioning of their duties such as controlling of crimes and maintenance of order which is possible when public comply and cooperate with police and obey the law when they perceive the police as legitimate (Mazerolle, et al., 2013). People who are unhappy with the police are less likely to get in touch with them or tell them about illegal activity (Decker, 1985). Additionally, a bad opinion of the police can lead to a cycle of increased crime, decreased police effectiveness, and increased public mistrust of the police (Brown & Benedict, 2002). Successful policing services depend on gaining the support and involvement of the public, and public satisfaction with the police is strongly positively impacted by police partnership with the public (Yeksel & Tepe, 2013). People who are satisfied with the police, believe that the police treat everyone fairly regardless of social status, and feel safe in their communities are more likely to be willing to cooperate with the police and have a positive opinion of the interactions between the police and the community (Nalla & Madan, 2012).

Consequently, it is critical to research public opinion, perception, and attitudes on law enforcement since these concepts affect how the public interacts with the police and supports them (Cao & Dai, 2006). In developed societies, there is a rich scientific literature on citizens' view of police and a number of instruments available to assess peoples' view of police. According to Brown and Benedict (2002), Decker's (1981) paper "Citizen attitudes toward the police: a review of past findings and suggestions for future policy" marked the beginning of a major growth in the volume of research on attitudes about the police. Nonetheless, there is a dearth of research on how the public views the police in Pakistan. Studies have been done using a variety of assessment instruments, but none of them is a standardized instrument to measure public opinion of the police in comparison to predetermined criteria. Therefore, the present study was conducted to meet the national need to have a standardized instrument to assess public perception of the police.

According to Brown and Benedict (2002), it was "police service rating scale" by Bellman (1935) which provided the basic drive for studies of public perception of the police. The scale was developed for full tabulation of ratable functions and divisions of a police department. However, Parratt (1936) criticized the scale by highlighting four major limitations; itemization is highly selective rather than comprehensive detail, lack of clarification of variables or continua, lack

of weighting of significant elements, and untested instrument which is not ready for use outside of a laboratory. Parratt argued that internal evaluation of police effectiveness is useful but at the same time it is also important to determine what is desired or approved by citizen opinion. Thus presented suggestions for improvements in Bellman's scale and developed a survey instrument "scale to measure effectiveness of police functioning". The scale measures following areas from public perspective; characteristics of personnel, selection and training, political influence, public and press relations, crime prevention, treatment of different groups, treatment of suspects and witnesses, and apprehension and investigation etc (Parratt, 1938). Recently, Nadal and Davidoff (2015) developed a scale that measures general attitudes toward police and perception of bias.

Assessment of public perception is difficult concept because the variable "citizens' perception of the police" has been quantified differentially in police literature (Nadal & Davidoff, 2015). For example, Mastrofski (1999) identified six dimensional conceptualization of perceived service quality of police. Brown and Benedict (2002) also seem to support the multidimensional conceptualization in that citizens have different view of police based on specific type of interactions. While testing Mastrofski's dimensional model, Maguire and Johnson (2010) found that their data supported one-dimensional construct of public perception of the police service quality. Hence, they claimed unidimensionality of the concept of public perception of the police.

In their landmark research paper "perception of the police: past findings, methodological issues, conceptual issues and policy implications" Brown and Benedict (2002) raised some methodological issues to be noted. First, those people who had contact with police as witnesses or suspects are in a better position to evaluate police behaviors. Unfortunately, they are not included in studies on perception of the police because it is difficult to locate them. And second sampling issue is the exclusion of poor and minorities from such studies. The most important issue highlighted by them is the validity of reported data because a number of variables influence people perception of the police such as; individual's race, sex, age, neighborhood, pre-existing attitudes toward police. Next issue as identified by them was the type of question used to measure public perception of the police. Some research findings reported that support for the police was unaffected by the type of question while other findings found significant variations in the responses to different type of questions. These are the documented inconsistencies across police research. To circumvent these challenges, they recommended researchers to

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develop objective and independent measures of police work to better determine the impact of police behaviors on attitudes toward the police.

Pakistan ruled for a long time, as part of the British Empire is presently a liberal-democratic state has a legitimate government with a criminal justice system intends to serve the population. In the country, the first role of police was to protect imperial regime, second to collect taxes, and finally to maintain law and order in society (Jackson et al., 2014). After independence in 1947, numerous committees and commissions were formed to promulgate need based police rule but police and criminal justice system remained essentially unchanged. However, on 23rd March, 2002, Police Order 2002 was promulgated to replace the colonial Police Act 1861 to make professionally competent, operationally autonomous, and democratically accountable police force (Javaid & Ramzan, 2013). Unfortunately, in 2009, the police order 2002 lost the presidential protection under the sixth schedule of the constitution, because the schedule offers provincial assemblies to independently promulgate police order as law and order is primarily a provincial matter (Imam, 2011).

In Pakistan, there is dearth of scientific literature on public perception of the police. In 2012, Akhtar and associates have studied public perception of police service quality in Punjab, the most populous province of Pakistan. To assess public perception of the police service quality, they constructed a survey instrument based on Mastrofski's conceptual model and found that public is generally satisfied with the quality of police service. Jackson et al., (2014) conducted another study in the same province to study corruption and police legitimacy by using self-constructed instrument. A qualitative study was conducted by Khan et al., (2015) to explore the community perception regarding the complex police culture and general atmosphere of police station in one of the towns of federal capital (Islamabad). They used guidelines/themes for informal interviews, in-depth interviews, and focus group discussion to collected data. In 2016, a study was conducted by Ullah, and colleagues to assess university students perceived police image in Khyber Pakhtoonkhwa, Pakistan by using a self-constructed structured questionnaire. In the article authors did not provide item details and any psychometric properties of their used questionnaire. According to Cao and Dai (2006), people in Pakistan expressed lower level of confidence in their police as compared to other neighbouring countries like; India, Bangladesh, Turkey, and China. But again, public confidence in police was assessed only by a single item using 1995 World Values Survey.

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In short, all studies involved either self-constructed instruments or qualitative checklists but none of them used a psychometrically sound instrument to collect data. Hence, the main purpose of the present study was to develop a Public Perception of the Police Questionnaire-Urdu (PPPQ-U) that could identify specific areas of public perception of the police. It is believed that a questionnaire that can assess specific areas of public perception of the police would be useful in designing relevant interventions to earn institutional legitimacy and public support for effective functioning of GB police. Based on past research on public perception of police, it is anticipated that the PPPQ-U would consist of public confidence in police, monitoring of police perception, and respect of human rights during policing services.

METHOD

In the present study, the scale development process was guided by the guidelines recommended by DeVellis (2003). Which included; deciding what to measure and generating an item pool, format the measurement, review of items by experts (psychometricians & content experts) and getting their feedback, considering item validation, and administration of items to the target sample (piloting is recommended before administering on full-scale sample). When a large number of subjects (300+) are included in the validation process then the scale developers can make better inferences about the instrument.

Development of Initial Pool of Items

Two recommended procedures were used to develop initial pool of items: review of relevant literature and conduction of focus group discussion (fgd). Based on past research on psychological variables related with public perception of police and police literature, the team of researchers who had more than five years of teaching and research experience has developed 70 items. The team was guided by three major themes. First, assessment of public confidence in police for that purpose police performance was set as an indicator. For example, police take an appropriate action when needed, police search and arrest criminals, police can be trusted, police are able to appropriately manage the traffic etc. Second theme was related to the possible causes of the low level of police performance. To assess it, different areas such as bribery and nepotism, external influence (particularly political influence), monitoring of police performance, and lack of resources as identified by the available literature were included. For example, police do not accept bribes, police are independent from politics, the SHO of our police station

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does not accept any pressure to maintain law and security, police are more favorable to people belonging to their same sect/religion, police are punished for their lack of performance, our police station is understaffed etc. The third theme was addressing human rights such as; police are respectful of female's privacy, police make excessive use of force, police provide adequate security to religious processions etc.

Focus group discussion was conducted with 12 community notables comprised of retired police and army officers, social workers, and *numberdars* (village heads) etc. who had a good level of experience in dealing with social issues and related police services. Focus group discussion was guided by aforementioned three themes and lasted over 90 minutes. Based on fgd 10 additional items were formulated. Guiding principles offered by Clark and Watson (1995) were followed during item generation stage. E.g. language was kept simple, slang words and multifaceted and/or double-barreled statements were not used.

The team of researchers was gathered with a professor who was well acquainted with psychometrics has reviewed and guided the team and 63 items were finalized. An Urdu language expert to improve face validity reviewed finalized items, thus morphing the developed items into a more polished and smooth statements for the questionnaire. The questionnaire was named "Public Perception of the Police Questionnaire-Urdu (PPPQ-U)" structured as five-point likert-type questionnaire. Each statement can be rated on five points by respondents: One to five is strongly disagree, disagree, agree, neutral, and highly agree. According to Comrey (1988), "formats for multiple-choice items are more dependable, yield more stable results, and yield better scales" (p. 758). Twelve of the sixty-three items had wording that required a reverse score because they contained negative comments. In order to prevent response acquiescence, which is the inclination to concur with assertions, likert scales usually evenly distribute positive and negative statements.

Research findings indicated that likert-type responses with five to eight options are most appropriate for questionnaires (Lietz, 2010). Respondents have option to rate each statement on five points: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. As stated by Comrey (1988) "multiple-choice item formats are more reliable, give more stable results, and produce better scales" (p.758). Out of the total 63 items, 12 were worded in unfavorable statements that need to be reverse scored. Likert scales usually balance positive and negative items in order to prevent response acquiescence, which is the

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propensity to agree with claims. This method compels the respondent to thoroughly examine each item and make decisions item by item (Goodwin, 2010; Patten, 1998). Lastly, 20 participants completed the PPPQ-U, and during the interview process, they disclosed any difficulties they had with any of the questionnaire's ambiguous or incomprehensible items. Furthermore, not one of them mentioned having any trouble grasping or understanding the claims.

Participants

Study participants included convenience sample of 691 (342 females) community members from all districts of Gilgit-Baltistan except Diamer. Their age was ranged from 17- 78 years with a mean age of 28.53 (SD = 10.9). Demographic details of research participants are presented in Table 1.

Measures

Demographic Form

Participants have completed a self-constructed form that was developed to collect their demographic variables such as; age, gender, marital status, education, occupation, socioeconomic status, living district, sectarian affiliation, and any interaction with police.

Public Perception of the Police Questionnaire-Urdu

The Public Perception of the Police Questionnaire-Urdu (PPPQ-U); the newly constructed PPPQ-U included 63 statements that measures an individual's' perception of police. The respondents rated their agreement with each statement on a five-point rating scale (1 being strongly disagreed, 2 disagreed, 3 neutral, 4 agree, & 5 strongly agree).

Procedure

Data were collected through self-administration of PPPQ-U along with demographic information form from educated participants after getting their consent to participate in the study. Structured interview was conducted by using PPPQ-U with uneducated participants. In consideration of the cultural background of GB, male participants conducted interviews with each other, while female researchers interviewed the female participants. It took 10 to 20 minutes for

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participants to finish the questionnaire. They had the option to leave the study at any point during their voluntary participation.

Statistical Analysis

The purpose of data analysis in the present study was to identify psychometrically sound magnitudes of public perception of the police for the new PPPQ-U. Before conducting exploratory factor analysis, all assumptions to conduct exploratory factor analysis; screening of outliers, item-total correlation, sample adequacy test for factor analysis were assessed. Each dimension of the new PPPQ-U was required to include a minimum of three items with a factor loading of ≥ 0.40 and revealed the internal reliability of ≥ 0.70 . Such stringent criteria were applied to enhance the probability that subscales of the new PPPQ-U would show acceptable goodness-of-fit values when confirmatory factor analysis applied. Exploratory factor analysis was conducted with SPSS 23 using varimax rotation to identify dimensions of public perception of police that were as theoretically clear and as statistically independent as possible from each other.

Psychometric assessment of the PPPQ-U dimensions included calculation of a recommended combination of goodness-of-fit indices using AMOS 20 software. In this study, SRMR (absolute fit), RMSEA (parsimony correction), and CFI and TLI (comparative fit) were selected to examine the goodness-of-fit on the basis of their overall satisfactory performance (Brown, 2006). In the present study, to examine absolute fit of proposed model, SRMR was preferred over chi-square value by considering the large sample size in the study. Because chi-square is vulnerable for inflation when sample size increases and overstringent criterion to check absolute fit and may mislead to reject the proposed model (Brown, 2006). On the basis of the evaluation of psychometric studies, Brown (2006) suggested following guidelines for a good fit between the target model and observed data. SRMR values should be close to .08 or below, RMSEA values should be close to .06 or below, and CFI and TLI values should be close to .95 or greater.

RESULTS

Table 1
Demographic Characteristics of Sample (N=691)

Variables	Males (<i>n</i> = 349) <i>f</i> (%)	Females (<i>n</i> = 342) <i>f</i> (%)	Total (<i>N</i> = 691) <i>f</i> (%)
Marital Status			
Married	205(59.4)	140(40.6)	345(49.9)
Single	142(41.4)	201(58.6)	343(49.6)
Other	2(100)	0	2(.2)
Education			
Illiterate	20(44.4)	25(55.6)	45(6.5)
Literate	48(59.2)	33(40.8)	81(11.7)
Matric	71(55.9)	56(44.1)	127(18.4)
Inter	87(46.2)	101(53.8)	188(27.2)
Graduation and above	123(49.2)	127(50.8)	250(36.2)
Occupation			
Govt. employees	101(59.4)	69(40.6)	170(26.6)
Self-employees	138(87.3)	20(12.7)	158(22.8)
Unemployed	15(21.4)	55(78.6)	70(10.1)
Students	61(26.1)	172(73.9)	233(33.8)
Housewives	N/A	19(100)	19(2.7)
Socioeconomic Status			
Lower	20(68.9)	9(31.1)	29(4.2)
Middle	302(50.5)	296(49.5)	598(86.5)
Upper	27(42.1)	37(57.9)	64(9.3)
Police Interaction			
Yes	101(76.5)	31(23.5)	132(19.1)
No	248(44.3)	311(55.7)	559(80.9)

Table 1
Continued

Variables	Males (<i>n</i> = 349)	Females (<i>n</i> = 342)	Total (<i>N</i> = 691)
	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)
Living District			
Gilgit	84(48.6)	89(51.4)	173(25.1)
Ghizer	48(48.5)	51(51.5)	99(14.3)
Hunza-Nagar	49(48.1)	53(51.9)	102(14.8)
Skardu	53(48.6)	56(51.4)	109(15.8)
Ghanche	52(60)	35(40)	87(12.6)
Astor	63(52.1)	58(47.9)	121(17.5)
Sect			
Ehl-e-Sunnat	72(56.7)	55(43.3)	127(18.4)
Ehl-e-Tashee	143(53.6)	124(46.4)	267(38.6)
Ismaili	98(42.8)	131(57.2)	229(33.1)
Noorbuksh	36(52.9)	32(47.1)	68(9.9)

Exploratory Factor Analysis

Before conducting exploratory factor analysis, 59 outliers were excluded from 750 respondents. Out of the total 63 items, 18 were excluded because their correlations with the total was < 0.3 . In this study the item-respondent ratio was 1:15 that was best as compared to the traditionally recommended ration of 1:5 (Comrey & Lee, 1991; Gorsuch, 1993). Kaiser-Meyer Olkin sample adequacy value was .95 indicating sufficient items for each factor and Bartlett's Test of Sphericity was $< .00$ revealing that the correlation matrix is significantly different from an identity matrix; hence, the use of exploratory factor analysis in this study was legitimate from psychometric perspective. Exploratory factor analysis of responses by the 691 community participants to the 45 possible scale items produced the new 13-item PPPQ-U with three dimensions: public confidence in police (four items), monitoring of police performance (six items), and respect of human rights (three items). The first dimension with an eigenvalue of 12.9 explained 28.67% variance, second dimension with an eigenvalue of 1.6 explained 3.75% variance, and third dimension with an eigenvalue of 1.4 explained 3.1% variance. Hence, all subscales in combination accounted for by a total of 35.5% variance (Table 2). Out of 45 items considered, 25 items were excluded as they were failed to show factor loading of ≥ 0.40 in any dimension, one factor (respect of human rights) with three items was not included in CFA because its Cronbach's alpha was < 0.7 , and 7 items were excluded as they were not loaded in any dimension.

Table 2
Exploratory Factor Analysis results showing two dimensions of the Public Perception of the Police Questionnaire-Urdu (PPPQ-U) (N= 691)

Item	Statement	Factor-I	Factor-II	R	M	SD
		PCP	MPP			
		($\alpha=.70$)	($\alpha=.72$)			
		Items=4	Items=6			
10.	Police can be trusted	.55	-	.59	2.7	1.3
09.	Police take appropriate action when needed	.53	-	.53	2.2	1.0
06.	Police on duty at your police station respond promptly to call for help	.52	-	.51	2.3	1.2
12.	Police protect people's lives	.49	-	.57	2.1	1.1
27.	Women feel confident to go to the police station	-	.46	.53	3.0	1.3
34.	Police are punished for their lack of performance	-	.44	.51	2.7	1.2
24.	Police performance is monitored at the police station	-	.43	.41	2.4	1.1
26.	Anyone can check FIRs at the police station	-	.43	.43	3.1	1.2
28.	Police use forensic techniques of investigation appropriately (DNA, finger prints, chromatography)	-	.42	.55	2.8	1.2
30.	Poor people trust the police	-	.40	.60	2.8	1.4
Eigenvalue		12.9	1.6			
%Variance		28.6	3.7			
Cumulative % Variance			32.4			
Excluded Dimension (eigenvalue=1.4, variance=3.1)			RHR ($\alpha=.61$)			

Table 2
Continued

Item	Statement	Factor-I	Factor-II	<i>R</i>	<i>M</i>	<i>SD</i>
		PCP	MPP			
		($\alpha=.70$)	($\alpha=.72$)			
		Items=4	Items=6			
32.	Police respect people's political life (ability to participate in political life without discrimination and repression)	.60		.46	2.2	1.0
38.	Police provide adequate security to religious processions	.46		.43	2.0	1.0
37.	Police are respectful of female's privacy	.41		.60	2.3	1.1

Model Fit Summary of PPPQU

Table 3 demonstrate the the assessment of psychometrics for the two PPPQ-U dimensions; acceptable goodness-of-fit were found for the complete sample of 691 community representatives: SRMR = .03, RMSEA = .03, and CFI = .98 and TLI = .97. However, chi-square ($\chi^2 = 65.5$, $df = 34$) value was out of the acceptable range and that was due the fact that increase sample size may cause inflation in chi-square value. Therefore, psychometrists recommend interpreting SRMR instead of chi-square to check the absolute fit of model because the first one is more stable indicator.

Table 3
Confirmatory Factor Analysis results showing goodness-of-fit indicators of Model for two dimensions of Public Perception of the Police Questionnaire-Urdu (N = 691)

Model	χ^2	<i>Df</i>	<i>SRMR</i>	<i>RMSEA</i>	<i>CFI</i>	<i>TLI</i>
Two Factor	65.5	34	.03	.03	.98	.97

Cutoff Scores and Interpretation of PPPQ-U

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The results (Table 4) revealed that people in GB expressed lower level of confidence in police. As for as monitoring of police performance is concern, public reportedly perceived low level of monitoring of police performance in GB. GB citizens were also reported that police in their respective province exercise low level of respect of human rights while performing their duties.

Table 4

Cutoff scores and Interpretations of Subscales of PPPQ-U (N= 691)

Scales	<i>M(SD)</i>	<i>Cutoff Scores</i>	Interpretation
Public Confidence in Police (PCP)	9.39(3.4)	≥17	High level of confidence
		13-16	Satisfactory level of confidence
		9-12	Low level of confidence
		≤8	Dissatisfactory level of confidence
Monitoring of Police Performance (MPP)	17.2(4.9)	≥25	High level of monitoring
		19-24	Satisfactory level of monitoring
		13-18	Low level of monitoring
		≤12	Dissatisfactory level of monitoring
Respect of Human Rights (RHR)	6.6(2.49)	≥13	High level of respect
		10-12	Satisfactory level of respect
		7-9	Low level of respect
		≤6	Dissatisfactory level of respect

DISCUSSION

The goal of the present research was to create a succinct empirical measure that assesses public perception of the police. The current study created a new 13-item PPPQ-U based on the ratings of 691 community sample, and its three subscales—public trust in police, police performance monitoring, and respect for human rights—showed adequate goodness-of-fit and internal reliability. These three specific PPPQ-U dimensions of public perception of police were expected from past research in Pakistan and across the world where researchers are eager to understand the level of public confidence in police and focuses on the importance of the monitoring of police performance. As stated by Jackson and Sunshine

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(2006), the idea of public confidence in law enforcement has gained more traction recently, although few research conducted outside of the United States have evaluated the sociological and social psychology factors that emphasize public support and trust in the police. Understanding how the public views the police is crucial since police effectiveness and adherence to democratic standards depend on public support.

Public may not see the police only from narrow sense that is provider of personal safety and security but police stand as symbol of moral custodians of communal stability and order and accountable for communal ethics and informal social controls (Jackson & Bradfor, 2009). Therefore, public confidence in police has become one of the most important issues and initiatives are underway to improve it (Bradford, et al., 2009). In this regard, survey studies about the police have become an integral part of the assessment of police performance as national and local survey studies play a critical role in monitoring of police accountability to the public and also provide opportunities for the police to set policing priorities (Skogan, 1996). Furthermore, Perkins (2016) recommended policing strategies should be based on the view of residents hold toward their local communities so that public confidence in police will be improved. And such studies conducted by using psychometrically sound instrument may provide reliable and valid findings that may lead to correct decisions.

Similar to the past research, citizens in GB also expressed low level of confidence in police. For example, findings of 1995 World Values Survey revealed that Pakistani citizens expressed lower level of confidence in their police as compared to other countries (Cao & Dai, 2006). In Pakistan, police failed to become a public service agency due to its culture with clonial grounds and mindset (Imam, 2011). For Khan et al. (2015) police should be a torchbearer of safety and security for public but unfortunately common person in Pakistan pray to avoid police station due to nonprofessional and politicized attitudes of police. Police image in public is deteriorated due to their inadequacy, corruption, and lack of accountability (Ullah et al., 2016). However, a single study from Punjab, Pakistan revealed that people were relatively satisfied from the quality of services provided by the police (Akhtar et al., 2012).

This is the first study that produced a succinct empirical measure developed in national context to assess public perception of the police. The measure can be used for the assessment of public perception toward police to prioritize policing services, bridging with the community to earn institutional

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legitimacy and public support for the police, and policy studies. The scale can also be used to prepare training modules for police based on public perception of the police.

The generalizability of the present study may be limited due to the fact that it was conducted including sample only from GB. Therefore, it is recommended to test its psychometric characteristics in other parts of Pakistan. Additionally, it is also recommended including the excluded factor "Respect of Human Rights" in future studies and test its psychometrics.

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