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Development of a scale assessing retired older adults' attitudes to volunteering

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Abstract

Objective(s): Given positive attitudes to volunteering are likely to be associated with support for volunteering and individual participation, this study aimed to develop and test a 10-item 'attitudes to formal volunteering' scale for retired older adults that could be used to inform intervention efforts.

Method: A sample of 801 Australian retirees (62% female; mean age 71.9 years) completed a survey that included the attitudes scale, demographic items, and questions assessing engagement in volunteering.

Results: A principal components analysis identified two factors (general attitude to volunteering and attitude to participating in volunteering) that together accounted for 64% of the variance in attitude scores. A confirmatory factor analysis indicated the two-factor model was an excellent fit to the data. Cronbach's alphas for both factors were $>.80$, and both were positively associated with volunteering engagement.

Conclusion: The proposed scale is a potentially useful instrument for measuring attitudes to volunteering among retired older adults.

Keywords: volunteerism; attitudes; healthy ageing; reliability and validity; factor analysis.

Policy Impact Statement: The developed scale could be used to identify elements of older adults' attitudes to volunteering that can be addressed in policies designed to encourage and facilitate higher levels of volunteering among older people.

Practice Impact Statement: The developed scale could be used by organisations that aim to promote a successful transition to retirement to assess attitudes to volunteering, and in health practitioner interactions with retired older people where the aim is to assist them achieve healthy ageing through participation in health-promoting activities such as volunteering.

Introduction

Formal volunteering (defined as non-mandatory and unremunerated work undertaken via an affiliation with an organisation¹) has been identified as an important contributor to healthy ageing due to the physical, psychological, and social benefits that are often associated with this activity among older adults.² It has been proposed that the greater advantages associated with formal volunteering in older relative to younger adults may be due to the ability to continue making contributions to society and the provision of a renewed sense of control and purpose.³ There is thus an opportunity to promote volunteering among retired older adults as a method of maintaining or enhancing their well-being. This is especially important given the increasing number of adult years that are expected to be spent in retirement as a result of greater life expectancy.⁴

The effectiveness of strategies designed to promote volunteering to retirees will be heavily influenced by the extent to which members of this group are receptive to such efforts, making it important to assess their underlying attitudes to volunteering prior to intervention development. Attitudes are summary evaluations that incorporate numerous psychological dimensions, including the extent to which something is considered good-bad, harmful-beneficial, or pleasant-unpleasant.⁵ Across numerous theoretical frameworks, attitudes are recognised as key behavioural determinants (e.g., the Theory of Planned Behavior (TPB),⁵ the Theory of Social Action⁶). Despite this, very limited work has examined attitudes to volunteering among older adults, with most research in this area to date focusing on motives to volunteer among people already engaging in this activity and consequently applying the Volunteer Functions Inventory (VFI).⁷⁻⁹ The VFI contains items found to be uninterpretable by some non-volunteering older adults.¹⁰ Motives to volunteer are defined as the reasons individuals seek out and commit to voluntary work, with volunteering considered more likely if it fulfils one or more motive.¹¹ Although motives can interact with attitudes to produce behavioural outcomes,¹² they are distinct constructs and have typically been examined separately.^{13,14} Previous volunteering research has found that an attitudes-based approach is

suited to predicting whether people engage in volunteering, whereas a motives-based approach is suited to predicting volunteering opportunities in which people may engage.⁹

Three studies were located that have examined attitudes to volunteering among older adults.^{13,15,16} The first found that attitude to volunteering was indirectly associated with intention to volunteer via moral obligation.¹⁵ The second study operationalised attitudes as behavioural beliefs about the costs and benefits of volunteering and found that volunteers were more likely than non-volunteers to believe that certain benefits would result from volunteering and less likely to believe there would be associated costs.¹⁶ In the final study, an attitudes-based approach (via the TPB) was found to be superior in predicting above-average engagement in volunteering compared to a motives-based approach (via the VFI).¹³ These results highlight the importance of measuring the distinct construct of attitudes.¹⁵

Several attitude measurement limitations in these prior studies suggest that the development of a new, reliable, and valid scale assessing attitudes to formal volunteering with demonstrated relevance to older people has the potential to make a valuable contribution to the literature. First, the utilised measurement tools focused on either attitude to volunteering in general or individuals' participation in this activity, but not both. Previous research has found that generally favourable attitudes to volunteering do not necessarily translate to actual participation.¹³ By contrast, favourable attitudes toward one's own volunteering behaviour (e.g., helping those in need) do differentiate volunteers from non-volunteers.¹⁶ This suggests that measuring both dimensions is needed to obtain meaningful data.

Second, most prior research has used a semantic differential approach to assess attitudes, with participants asked to rate volunteering on scales such as interesting-boring, pleasant-unpleasant, and enjoyable-unenjoyable. Answering a semantic differential scale requires a greater degree of cognitive effort than answering a Likert scale because respondents need to interpret the dimension implied by each pair of words.^{17,18} This level of cognitive load may not be suitable for some older adults and could potentially result in random errors in responses and lower score reliability.¹⁷ A semantic differential approach to the measurement of attitudes also lacks nuance because such scales assess only simple evaluative beliefs whereas Likert scales allow for ratings of relatively complex belief statements.¹⁹ The aim of the present study was to address these limitations by developing and psychometrically

evaluating a scale designed to enable assessment of older adults' attitudes to (i) formal volunteering in general and (ii) their own participation in volunteering.

Material and Methods

Scale Development

Two existing measures were identified that represented potential starting points for the development of an 'attitudes to volunteering' scale that would be suitable for retirees: the Community Service Attitudes Scale (CSAS) and the Civic Responsibility Survey (CRS). These scales were considered appropriate because of their inclusion of Likert-scale items that address both the perceived value of volunteering to the community and attitudes to becoming personally involved in volunteering.

The CSAS was originally developed as a measure of college students' attitudes to community service,²⁰ and it has been found to be a reliable measure of this phenomenon (Cronbach's alpha of .93).²¹ In terms of validity, scores on this scale have been associated with previous community service involvement, amount of involvement, and intentions to engage in community service.²⁰ The CRS was developed to assess civic responsibility in younger people, and prior examinations of this scale have also found it to be a reliable measure for its intended purpose (Cronbach's alphas of 0.76 to 0.93).²²

Items from both the CSAS and CRS were examined in terms of their suitability for inclusion in a new 'Attitudes to formal volunteering in retired older adults' scale. To ensure the scale was specifically focused on the assessment of attitudes, items were removed that assessed: (i) behavioural intentions (e.g., I will participate in a community service project in the next year); (ii) motivations (e.g., I would experience personal satisfaction knowing that I am helping others); (iii) personality traits such as empathy (e.g., I feel bad that some community members are suffering from a lack of resources); and (iv) connection to the community (e.g., I have a strong and personal attachment to a particular community).

Given the CSAS and CRS were originally developed for use among college students and younger people respectively, changes were also made to ensure the scale was relevant to retired older adults. For example, items were removed that made reference to college students

and participating in service learning (e.g., College student volunteers can help improve the local community). Finally, several items were removed that were highly similar to other items to minimise redundancy and ensure the length of the scale was suitable for its inclusion in studies involving numerous measurement scales (e.g., for the CSAS: All communities need good volunteers was retained while Our community needs good volunteers was removed).

This process resulted in a 10-item measure, with five items either shortened to reduce administration time (e.g., Volunteers in community agencies make a difference, if only a small difference was changed to Volunteers make a difference) or modified to reflect the scale's focus on volunteering (e.g., Community service is necessary to making our communities better was changed to Volunteering is necessary to make our communities better). The original response scales (1=strongly disagree to 7=strongly agree for the CSAS and 1=strongly disagree to 6=strongly agree for the CRS) were simplified to a 5-point response scale with the same anchor points to minimise cognitive burden.

Sample and Recruitment

The study was conducted in the metropolitan area of Perth, Western Australia as part of a larger project examining healthy ageing among older people who are not in the workforce.²³ The sample for the larger project (n=859) was recruited via various means including: (1) notices placed in publications relevant to older adults, community newspapers, and in the offices of government and non-government organisations; (2) announcements made on a community radio station; and (3) flyers distributed to retirement villages and at older adults' events. Eligibility criteria included being aged 60+ years, fully retired, and able to read and speak English. Participants meeting these criteria were invited to complete the developed scale as part of a battery of measures, with 801 older adults providing responses to the items of interest to the present study. Ethics approval to conduct the study was obtained from Curtin University's Human Research Ethics Committee (HR21/2014). All participants provided written informed consent.

Measures and Procedure

Participants were sent a survey containing the scale by post or via a web link, depending on preference. Included in the survey were various demographic items, the 10 items of the attitudes to volunteering scale, and a question assessing engagement in formal volunteering in the previous 12 months (Have you done any formal volunteer work in the last 12 months?

That is, work activities that are unpaid, non-compulsory, and unrelated to family obligations?; Binary response option: yes/no). Those who reported engaging in formal volunteer work were asked a follow-up question that assessed average hours spent volunteering per week over the 12 months preceding the survey (Over the last 12 months, how many hours of volunteering have you engaged in per week (on average)?). Those who did not report engaging in formal volunteering were given a score of '0' on this variable.

Statistical Analysis

To facilitate cross-validation of results, SPSS was used to generate two random samples from the overall dataset. To determine the factor structure of scores derived from the developed 10-item scale, a principal components analysis (PCA) with direct oblimin rotation was performed on scores obtained on this measure by Sample 1 using SPSS. Factors with an eigenvalue >1 were retained. To confirm the factor structure identified in the PCA, a confirmatory factor analysis (CFA) was conducted on scores obtained on the scale by Sample 2. The fit of the model was assessed using maximum likelihood estimation in MPlus. Model chi-square, the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Standardised Root Mean Square Residual (SRMR) were used to assess model fit. A non-significant chi-square, RMSEA value ≤ 0.06 , CFI and TLI values ≥ 0.95 , and SRMR values < 0.08 indicate good model fit.

Cronbach's alpha was calculated to assess internal reliability of scores on the items comprising the factors derived from the PCA. Demonstrating associations with relevant correlates is one approach to assessing the convergent validity of a scale. In the original validation of CSAS, Shiarella et al.²⁰ found scores on the CSAS to be positively related to community service experience and amount of community service involvement. To assess the scale's convergent validity, scores on the scale were therefore correlated with self-reported engagement in volunteering (using logistic regression) and average number of hours spent volunteering per week (using linear regression).

Results

Sample Profile

Compared to the national population of those aged 60+ years, the sample comprised a larger proportion of women and those residing in high socioeconomic status (SES) suburbs, and a smaller proportion of those with a tertiary education (Table 1).²⁴ The proportion of the

sample reporting volunteering in the previous year (37%) was generally comparable to the rates seen in a nationally representative sample (31%).²⁵ The two randomly generated samples were comparable in terms of gender, age, SES, education level, and engagement in volunteering over the previous year (Table 1).

Insert Table 1 about here

Principal Components Analysis

Feasibility of the PCA was verified using Bartlett's test of sphericity ($\chi^2=2099.83$, $df=45$, $p<.001$) and the Kaiser-Meyer-Olkin (KMO) measurement of sampling adequacy (0.89). Item-level descriptive statistics and inter-item correlations are presented in Table 2. All correlations were significant at $p<.001$.

Insert Table 2 about here

Results from the PCA revealed the presence of two factors that accounted for 64% of the total variance in scores on the scale. Factor 1 accounted for 52% of the variance and Factor 2 accounted for 12%. Examination of the pattern matrix (presented in Table 3) indicated the two factors related to attitude to volunteering generally (Factor 1: 6 items) and attitude to participating in volunteering (Factor 2: 4 items), respectively. Individual factor loadings performed strongly, ranging from .57 and .91 for Factor 1 and .61 and .92 for Factor 2. The two factors were significantly correlated ($r=.55$, $p<.001$).

Insert Table 3 about here

Confirmatory Factor Analysis

Supporting the outcomes of the PCA, the fit indices for a two-factor latent variable solution were excellent, indicating the data were a good fit to the model ($\chi^2(6)=9.72$, $p=.137$; RMSEA=0.04 (0.00, 0.08); CFI=1.00; TLI=0.99; SRMR=0.01). Table 4 presents the unstandardised and standardised parameter estimates and standard errors for the model. All associations were statistically significant (all p -values $<.001$), and Factor 1 and Factor 2 were significantly correlated ($r=.78$, $p<.001$).

Insert Table 4 about here

Internal Reliability

Given the consistency of results obtained for the PCA and the CFA, Samples 1 and 2 were combined to assess internal reliability. Cronbach's alpha was .88 for Factor 1 (general attitude to volunteering) and .84 for Factor 2 (attitude to participating in volunteering), both of which can be considered very good. Cronbach's alpha for the overall scale was .90, which is considered excellent.

Convergent Validity

The validity of scores derived from the 'Attitudes to formal volunteering in retired older adults' scale was assessed by correlating factor scores with self-reported engagement in volunteering and amount of volunteering. These correlations were conducted on the combined sample. Binary logistic regressions revealed that general attitude to volunteering (Factor 1: OR=3.80, SE=0.18, 95% CI for OR=2.68-5.38, $p<.001$) and attitude to participating in volunteering (Factor 2: OR=2.88, SE=0.13, 95% CI for OR=2.25-3.68, $p<.001$) were significantly and positively associated with engagement in volunteering during the past year.

Linear regression scores for Factor 2 ($b=1.37$, SE=0.56, 95% CI for $b=0.26-2.48$, $\beta=.15$, $p=.016$) were significantly and positively associated with the average number of hours spent volunteering per week during the past year. By contrast, scores for Factor 1 were not associated with this variable ($b=1.26$, SE=0.83, 95% CI for $b=-0.38-2.90$, $\beta=.09$, $p=.131$).

Discussion

This study assessed the reliability and validity of a scale designed to be suitable for measuring older adults' attitudes to formal volunteering. The PCA revealed the presence of two factors: general attitude to volunteering and attitude to participating in volunteering. This outcome is consistent with the deliberate inclusion of items assessing these constructs adopted from other scales. Cross-validation using CFA found that the two-factor model provided an excellent fit to the data, and reliability analyses indicated that the scores on the items comprising the two identified factors were internally consistent. Finally, the logistic regression analysis conducted to assess convergent validity of scores on the scale showed that scores on the two factors were significantly and positively associated with volunteering among the retired older adults sampled in the present study. Scores on the 'attitude to

participating in volunteering' factor were additionally associated with the amount of time spent volunteering. Given scores for the 'general attitude to volunteering' factor were not found to be associated with amount of time spent volunteering, the results suggest that two correlated yet distinct factors underlie the overall scale.

The proposed 'Attitudes to formal volunteering in retired older adults' scale may be a useful brief tool for assessing retired older adults' beliefs about the value of volunteering to society and perceptions of their own engagement (or potential engagement) in volunteering. It could be used by organisations that aim to promote a successful transition to retirement (e.g., Council on the Ageing) to assess individuals' attitudes to engaging in volunteering. The scale could also be applicable in health practitioner interactions with retired older people where the aim is to assist them achieve healthy ageing through participation in health-promoting activities such as volunteering. The results suggest that such discussions could focus on individuals' attitude to their own engagement in volunteering given this factor was found to be more strongly related to time spent volunteering than general attitudes toward the activity. Finally, given previous research suggests that shorter questionnaires have higher response rates than their lengthier counterparts,²⁶ this brief tool could be used to improve the quality of data in large-scale volunteering studies that use numerous measurement scales to assess the association between attitudes to volunteering and a range of other factors and behaviours.

This study had several limitations. First, the cross-sectional design precluded an assessment of predictive validity and, as such, whether attitudes predict engagement or engagement in volunteering predicts attitudes. A bidirectional relationship likely exists, with longitudinal research needed to explicate this relationship and provide further information on the utility of the developed scale in predicting volunteering engagement. Second, owing to the use of convenience sampling, the sample was not representative of the Australian older adult population in terms of gender, SES, and tertiary education. Attempts should be made to replicate the study in a representative sample, with particular attention given to the inclusion of culturally and linguistically diverse participants who were not catered for in the present study due to the eligibility requirement of reading and speaking English. Third, some participants in the sample were volunteers who may have held a positive attitude to volunteering because of their engagement in this activity. This may have resulted in an over-estimation of the convergent validity of the scale but was necessary to assess the association between attitudes to volunteering and engagement in the activity, as per Shiarella et al.²⁰

Fourth, to minimise participant fatigue, full versions of the CSAS and CRS were not administered. As such, redundancies in items were determined a-priori rather than statistically. Fifth, the data were collected in one country and, as such, the results may reflect cultural characteristics. Research is therefore needed in a range of geographical contexts. Finally, the items loading onto Factor 2 (attitude to participating in volunteering) do not explicitly include the word ‘volunteering’. The instructions accompanying the scale did, however, cue participants into the volunteering context, thus ensuring responses were made in relation to volunteering and not helping behaviours generally. Researchers and practitioners intending to use the scale should similarly direct those completing it to respond with volunteering in mind. The wide age range of older people assessed and the focus on retired older adults were strengths of the study.

In conclusion, scores on the proposed ‘Attitudes to formal volunteering in retired older adults’ scale demonstrated excellent reliability and validity in the present study. The scale is a potentially useful measure of attitudes to volunteering among retired older adults.

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Table 1. Sample profile†.

Characteristic	Overall sample N=801	Sample 1 n=401	Sample 2 n=400	p-value
Gender				0.77
Women	493 (62%)	243 (61%)	250 (62%)	
Age (in years)				0.88
Mean (SD)	71.9 (6.7)	72.0 (6.9)	71.9 (6.5)	
Socioeconomic status‡				0.98
Low	124 (16%)	63 (17%)	61 (16%)	
Mid	209 (28%)	104 (27%)	105 (28%)	
High	427 (56%)	215 (56%)	212 (56%)	
Education level				0.17
Tertiary-educated	227 (29%)	104 (27%)	123 (31%)	
Volunteering in past year				
n, % yes	295 (37%)	146 (36%)	149 (37%)	0.78
Hours per week (Mean (SD))	6.3 (5.9)	5.8 (5.0)	6.4 (6.7)	0.15

†Missing values treated listwise.

‡Postcodes were used to calculate the SES of the area in which participants resided as per the Australian Bureau of Statistics' Socioeconomic Index for Areas.²⁷

Table 2

Item-level descriptive statistics and inter-item correlations[†].

Item	Mean (SD)	Skew. [‡]	Kurt. [‡]	1	2	3	4	5	6	7	8	9	10
1: There are people in the community who need help	4.6 (0.6)	-1.76	5.28	-	.32	.45	.47	.28	.28	.28	.29	.43	.40
2: Volunteer work helps solve social problems	4.2 (0.7)	-0.52	0.19		-	.56	.51	.38	.41	.41	.42	.46	.48
3: Volunteers make a difference	4.5 (0.6)	-0.67	-0.59			-	.74	.45	.35	.42	.34	.58	.61
4: Volunteering can greatly enhance the community's resources	4.5 (0.6)	-0.87	0.06				-	.49	.38	.44	.31	.58	.58
5: I can make a difference in the community	4.0 (0.8)	-0.66	0.84					-	.50	.62	.39	.36	.40
6: It is my responsibility to take some real measures to help others in need	3.8 (0.9)	-0.36	-0.28						-	.69	.65	.43	.49
7: It is important to me to contribute to the community	3.9 (0.8)	-0.42	-0.06							-	.57	.48	.55
8: Other people deserve my help	3.8 (0.8)	-0.17	0.40								-	.46	.49
9: All communities need good volunteers	4.4 (0.6)	-0.66	-0.15									-	.74
10: Volunteering is necessary to make our communities better	4.4 (0.7)	-0.75	-0.04										-

[†]All correlations significant at $p < .001$. Correlations between the items comprising Factor 2 are bolded. Each item of the scale was assessed on a 5-point scale (1=strongly disagree to 5=strongly agree).

[‡]Skew.=skewness; Kurt.=kurtosis.

Table 3

Factor loadings from the principal components analysis of the 10-item attitudes to volunteering scale (Sample 1: n=401).

Items	Factor 1	Factor 2
1: There are people in the community who need help	0.71	-0.10
2: Volunteer work helps solve social problems	0.57	0.19
3: Volunteers make a difference	0.91	-0.07
4: Volunteering can greatly enhance the community's resources	0.88	-0.04
5: I can make a difference in the community	0.19	0.61
6: It is my responsibility to take some real measures to help others in need	-0.07	0.92
7: It is important to me to contribute to the community	0.05	0.85
8: Other people deserve my help	-0.02	0.82
9: All communities need good volunteers	0.70	0.17
10: Volunteering is necessary to make our communities better	0.64	0.27

Table 4

Standardised and unstandardised parameter estimates and standard errors observed in the confirmatory factor analysis (Sample 2: n=400).

	B [†]	SE [†]	β [†]	p [†]
Factor 1: General attitude to volunteering				
1: There are people in the community who need help	0.35	0.03	.58	<.001
2: Volunteer work helps solve social problems	0.60	0.05	.79	<.001
3: Volunteers make a difference	0.52	0.04	.87	<.001
4: Volunteering can greatly enhance the community's resources	0.50	0.04	.81	<.001
9: All communities need good volunteers	0.51	0.04	.83	<.001
10: Volunteering is necessary to make our communities better	0.53	0.04	.76	<.001
Factor 2: Attitude to participating in volunteering				
5: I can make a difference in the community	0.63	0.05	.82	<.001
6: It is my responsibility to take some real measures to help others in need	0.57	0.05	.66	<.001
7: It is important to me to contribute to the community	0.59	0.05	.74	<.001
8: Other people deserve my help	0.47	0.05	.56	<.001

[†]B=unstandardised parameter estimate; SE=unstandardised standard error; β =standardised parameter estimate; p=p-value.

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