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Serve: A Meta-Analysis**

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THE BENEFICIAL EFFECTS OF VOLUNTEERING FOR OLDER VOLUNTEERS AND THE PEOPLE THEY SERVE: A META-ANALYSIS

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ABSTRACT

The current political-economic climate, which is generally supportive of both private and public sector down-sizing, increasingly demands that human service workers assess, engage, and creatively use consumer strengths and resources. This meta-analysis of thirty-seven independent studies provided the means of inferring not only that elder volunteers' sense of well-being seemed to be significantly bolstered through volunteering, but also that such relatively healthy older people represent a significant adjunct resource for meeting some of the service needs of more vulnerable elders, as well as those of other similarly vulnerable groups such as disabled children. Averaging across studies, 85 percent of the "clients" who received service from an older volunteer (e.g., peer-counseling of nursing home residents) scored better on dependent measures (e.g., diminished depression) than the average person in comparison conditions did ($U_3 = .847$ [Cohen, 1988], combined $p < .001$). The policy implications of such beneficial effects among both older volunteers and the people they serve are discussed.

Concurrent prevalent increases among both the older population and the population of vulnerable people needing human services have prompted service providers to develop innovative, elder volunteer programs as one adjunct method of meeting such social and service demands. Numerous programs have emerged

since the 1960s linking older volunteers with people who may benefit from their service. Two such exemplary programs are the Retired Senior Volunteer Program (RSVP) and the Foster Grandparents Program (FGP). Both the volunteers and those they serve, be they young or old, have seemed to glean tremendous benefits from such programs. For example, volunteers, serving vulnerable older people, fully credited their voluntary participation in RSVP for greatly increasing their life satisfaction (Fengler, 1984). Similarly, children have experienced positive intellectual and social development as benefits of their foster-grandparents' care (Saltz, 1989)

Healthier older people, the majority of whom are not in the paid work force, represent a huge *willing* and able human resource (Cnaan & Cwikel, 1992; Ozawa & Morrow-Howell, 1988). In fact, presently one of every five people sixty-five years of age or older engages in some form of voluntary service, participation rates of which have increased two- to four-fold (across different definitions of voluntary service) over the past twenty-five years (Chambré, 1993; Fischer, Mueller, & Cooper, 1991; Kincade et al., 1996). Moreover, this potential resource is likely to continue increasing well into the future with the coming of age of the "baby-boomers." Furthermore, this field's extant research supports the notion that older volunteers prefer "meaningful tasks." Seniors have resoundingly expressed their desire for meaningful interpersonal volunteer work over mechanical or physical tasks (Newman, Vasudev, & Onawola, 1985). Although what may constitute a "meaningful task" ultimately depends upon each individual older volunteer's perception, some have simply defined it as "helping others" (Brennan, 1989; Ward, 1979). By the very nature of the helping relationship, mutual benefits (i.e., to the help provider and receiver) may quite intuitively be hypothesized. For example, in the Family Friends program "interdependent relationships formed in the volunteer experience were central to the personal benefits volunteers reported" (Kuehne & Sears, 1993). Similarly, nursing home residents visited regularly by senior volunteer counsellors "reported significantly less depression" (Nagel, Cimboric, & Newlin, 1988).

Although the benefits attained by senior volunteers and the people they serve have been fairly consistently reported, there is a need for a clarified overview of such benefits (Chambré, 1993; Kuehne & Sears, 1993; Newman et al., 1985). We are not aware of a single review which has integrated the knowledge of this field which now claims a near thirty-year history. Since questions concerning the effects of voluntary participation among older people will likely have great policy implications well into the future, an integrative synthesis of the extant knowledge base may be helpful at this point. The present meta-analytic review of the studies in this field endeavors to perform this service by answering two practically significant questions: How effective is volunteering in affecting beneficial change among both older volunteers and the people they serve?

METHOD

Selection of Independent Studies

Computerized databases of *Psychological*, *Sociological*, and *Social Work Abstracts* as well as *Dissertation Abstracts International* were searched (1965 to the present) on the following key word scheme: (volunteer or voluntary) and (aged or older adult or elder) and (effect or efficacy or benefit or assessment or evaluation or outcome or follow-up). All forms of volunteer activities were included (voluntary association membership, indirect and direct helping roles), so that any differential effects could be observed across the continuum. These searches were then augmented with bibliographic reviews of relevant manuscripts; a total of fifty-one manuscripts were retrieved. Next, from these conceptually relevant studies, only those thirty-seven (73%) operationalized such that their effect size was calculable were included in the present analysis. These thirty-seven studies comprise the sample for meta-analysis (marked with an asterisk in the References section); twenty-nine hypothesized effects on the older volunteers themselves, nine on the people they serve, and one study reported both older volunteer and "client" outcomes.

Analyses

A scale-free metric or effect size—the r index—which is calculable and interpretable as Pearson's linear correlation coefficient and estimates the strength of the hypothesized independent-dependent variable association (volunteer program-outcome measure), was calculated for each of the thirty-seven independent studies (Cooper, 1989). As the majority of the studies in this field fall far short of being able to confidently assess a hypothesized causal program-outcome relationship, that is, they are cross-sectional surveys or pre-experiments (1 group pre-post designs), an effect size index which focuses upon their correlation was deemed most appropriate. Pearson's r is calculable from a variety of outcome statistics (group M s and SD s, t -test, F -ratio, χ^2 , and p -level with group n s), and thus allows for ease of across-study comparison and summary. R -indexes were averaged within older volunteer and "client" (i.e., the persons with whom the older volunteers worked) effect domains and the overall statistical significance of each domain was estimated by the method of unweighted probabilities (Rosenthal, 1978); sample size was not found to be associated with effect size, so the across-study combined probabilities were not weighted by individual study sample size. It should also be noted that none of the other major study design characteristics (random selection of participants, country, major design typology, type or validity of dependent measures) significantly moderated either volunteer or "client" effects, so we are confident that they do not confound this review's central findings.

Practical Significance

The practical or clinical-policy significance of volunteering for elders and the people they serve was then estimated by transforming each r -index into another even more intuitively appealing scale-free metric, that is, Cohen's (1988) U_3 . For example, a U_3 of .750 comparing a group of older volunteers with their non-volunteering counterparts on life satisfaction would be simply interpretable as follows: 75 percent of the volunteers scored higher on the measure of life satisfaction than the average non-volunteering elder did. Another hypothetical example concerning "clients" would be interpreted similarly. A U_3 of 75 percent estimated for a quasi-experimental evaluation of the effects of peer-counseling on nursing home residents' affective status would simply mean that three-quarters of the residents who experienced peer-counseling scored lower on a measure of depression, for example, than the average resident who did not experience such volunteer intervention. Such estimates of practical significance can provide rational and empirical bases for the making of difficult cost-benefit decisions concerning the future effective use of older volunteers.

RESULTS

Sample Description

This integrative review's sample of thirty-seven independent studies accomplished over the past twenty-five years (ranged from 1968 to 1994, $Mdn = 1984$) was predominantly of published ones (29 journal articles, 78%), though unpublished sources were also represented: seven dissertations and one paper presented at a professional conference. Thirty-four (92%) of the studies were accomplished in the United States (three national surveys, the remainder approximately equally represented among regions), the other three were carried out in Canada. Their samples of older volunteers ranged widely from 15 to 2,164 participants ($Mdn = 98$); aggregating across studies (weighted by original study sample sizes) this review's older volunteer sample was: seventy-one years of age on average (mean), predominantly white (90%), female (72%), and not married (54% widowed, 10% separated, divorced, or never married). The numbers of "clients" or people served by the older volunteers also varied widely (ranged from 54 to 739, $Mdn = 70$); little demographic detail was provided on them in the original reports.

The original studies typically used correlational designs (78%, prevalence surveys or pre-experiments [one group, pre-post]) to assess the association of volunteering with standardized measures (62%) of quality of life (predominantly [68%] conceptualized as life satisfaction, see Table 1). The majority of the studies were of volunteer programs which involved face-to-face or direct helping (volunteer-"client") relationships (54%) or more indirect (some support

Table 1. Descriptive Profile of the Thirty-Seven Reviewed Studies:
Percentage Distributions

Design Characteristics	Studies		Program Characteristics	Studies	
	<i>n</i>	%		<i>n</i>	%
Research Designs			Type of Volunteer Service^b		
Cross-sectional	20	54.1	Direct helping	20	54.1
Pre-experimental	9	24.3	Indirect helping	9	24.3
Quasi-experimental ^a	7	18.9	Memberships	8	21.6
Experimental ^a	1	2.7			
Outcome Measures^c			Clients Served^d		
Standardized	23	62.2	Nursing home residents	4	44.4
Constructed-quantitative	7	18.9	Older social svc. recipients	2	22.2
Constructed-qualitative	7	18.9	Disabled children	2	22.2
			Elder caregivers	1	11.1
Construct Measured			Institutional Affiliation		
Life satisfaction/ happiness	25	67.6	Social work	14	45.2
Depression/isolation	5	13.5	Sociology-anthropology	10	32.3
Client-assessed helpfulness	5	13.5	Psychology	5	16.1
Goal attainment	2	5.4	Other	2	6.5

Note: The following programs were represented among the studies of direct and indirect volunteer helping: Retired Seniors Volunteer Program (RSVP, 4 studies); Foster Grandparents Program (FGP, 3 studies); two each Peer Counseling, Ombudsman, Family Friends, General Hospital, and School Volunteer Programs; one each Older Adults Sharing Important Skills (OASIS), Senior-to-Senior Mediation Project (SSMP), Volunteer Information Provider Program (VIP), Empathetic Listening Program; and eight unnamed others.

^aComparison/control conditions: older non-volunteers (4 studies); one each older senior center participants, volunteer drop-outs, and wait-listed; and one group of adolescent volunteers.

^bDirect helping = face-to-face work, indirect helping = perform support functions to assist helping professionals (e.g., clerical work at a human service agency), and memberships = membership and participation in voluntary associations including religious, veteran and fraternal ones.

^cStandardized = existing psychosocial measures with established indices of reliability (ranging from $r = .76$ to $.90$) and validity ($.71$ to $.84$); constructed-quantitative = quantitative measures unique to the study; and constructed-qualitative = qualitative measures unique to the study (e.g., self- or client-assessed "helpfulness").

^dThose nine studies which reported client outcomes.

function), though helping roles (24%); older volunteers had typically engaged in such work for twelve months (ranged from 2 to 48 months across 17 studies reporting such data) for four hours per week (ranged from 1 to 20 hours, 9 studies reported).

Effects of Volunteering

Older Volunteer Effects

Combining the results of the twenty-nine studies reporting outcomes among older volunteers, a significant volunteering-quality of life association was observed; mean r -index of .252, combined $p < .001$. Conversion to Cohen's U_3 allows for the inference that 70 percent of the older volunteers enjoy a greater quality of life (e.g., life satisfaction measures) than the average non-volunteer does (see Table 2). Next, to provide some measure of meta-analytic control for the potentially confounding influence of health or socioeconomic status among these predominantly correlational studies, the outcomes of the sixteen studies which provided any adjustment (sample restriction, matching or mathematical modeling) for either of these potential confounds were compared with the thirteen unadjusted study outcomes: respective r -indices—($M = .186$, $SD = .149$) vs. ($M = .322$, $SD = .147$), $t(27) = 2.47$, $p < .05$. Though the adjusted effect was found to be smaller than the unadjusted one, it remained significant in both a practical and statistical sense ($U_3 = .648$, combined $p < .01$).

Table 2. The Effects of Volunteering on Older Volunteers and the People (Clients) They Serve

Effect Size Statistics	Older Volunteers	Clients
Studies (n)	29	9
Minimum r	.000	.248
Maximum r	.582	.609
Mean r	.252 ^a	.458 ^b
SD	.160	.131
r 95% CI	.194, .310	.372, .544
Cohen's U_3	69.8%	84.7%

Notes: 1) A total of thirty-seven studies were analyzed: one study reported both older volunteer and client outcomes. 2) Inter-rater agreement among the two coders (one naive) who abstracted variables from the study manuscripts was 96.2%.

^aCombined probability by the method of adding z s, $p < .001$: twenty-three studies, $p < .05$; one $p < .10$; and five nonsignificant.

^bCombined probability by the method of adding z s, $p < .001$: eight studies, $p < .05$; and one nonsignificant.

Consistent with previous more qualitative inferences, the type of volunteer services was found to moderate the benefits of service observed among older volunteers. Those who engaged in direct helping ($n = 12$ studies) seemed to derive greater rewards from volunteering ($M_{r\text{-index}} = .358$, $SD = .134$) than other elders engaged in more indirect or less formally "helping" roles ($n = 17$ studies, $M = .173$, $SD = .132$), $t(27) = 3.70$, $p < .01$. Nearly eight of every ten such formally helping older volunteers scored higher on quality of life measures than the average non-volunteer did ($U_3 = .779$, combined $p < .01$). This finding implicates the importance of *active volunteer* participation, rather than mere passive voluntary membership or engagement in some form of activity.

Client Effects

Combining the results of the nine studies reporting outcomes among the people older volunteers serve (7 on work with other older people and their families, 2 with disabled children), a significant large effect of volunteering was observed; mean r -index of .458, combined $p < .001$. Conversion to Cohen's U_3 allows for the inference that 85 percent of the people with whom older volunteers worked did better (e.g., nursing home residents were less depressed) than the average person in a comparison group (see Table 2). Interestingly, the observed average interventive effect among the three studies in which older volunteers engaged in enablement or counseling-type roles ($M^{r\text{-index}} = .563$, $SD = .027$) was significantly larger than when they engaged in other helping roles such as advocacy, mediation, social brokering or information-referral ($n = 6$ studies, $M = .405$, $SD = .131$), $t(7) = 2.82$, $p < .05$ (Satterwaitte's procedure for unequal variances). Nine of every ten "clients" "counselled" by older volunteers experienced more improvement on outcome measures than their average counterpart who did not experience such intervention did ($U_3 = .913$, combined $p < .01$). It seems that both older volunteers and the people they serve benefit most from the experience when it involves a face-to-face helping relationship.

Caveat on Potential Publication Bias

Because it was based predominantly on published research, the findings of this meta-analysis may be confounded by publication bias, though we believe that such intrusion is highly unlikely. Rosenthal's (1979) fail-safe N s at $p < .05$ for the overall effects among older volunteers and "clients" were found to be 491 and 183, respectively. This is the estimated number of studies with null findings which would have to exist in worker's "file drawers" to change this review's central conclusions. The computed fail-safe N s are more than fifteen times the number of respective studies included in this review ($n = 29$ and 9). Moreover, other recent reviews of the unpublished literature on more general interventive effectiveness have estimated similar effects as those arising from the published literature (de Smidt & Gorey, 1997; Grenier & Gorey, 1998). Thus, this review's overall findings seem highly resistant to the potential impact

of unretrieved null results. It should also be noted that the characteristic of publication status (published articles vs. dissertations or conference proceeding, Light & Pillemer, 1984) did not significantly moderate either older volunteer or "client" effects, providing further evidence that publication bias is not a potent alternative explanation for this review's findings.

DISCUSSION

The past twenty-five years of research on volunteering among North American elders provides the basis for generally inferring its large beneficial effects among both older volunteers and those they serve. Based upon thirty-seven studies, nearly three-quarters (70%) of the older volunteer participants scored higher on quality of life measures than their average non-volunteer counterpart did, while 85 percent of their "clients" (i.e., vulnerable older or younger people with whom they worked) were improved (e.g., less isolated or depressed) as compared with the typical non-participating "client." Moreover, such effects of volunteering are probably not merely "healthy participator" effects; they persisted even after the independent effects of health and socioeconomic status were accounted for. Supporting previous theorizing in this field (Fischer et al., 1991), the findings of this meta-analysis also strongly suggested that both older volunteers ($U_3 = 78\%$) and the people they serve ($U_3 = 91\%$) benefit most from the experience when it involves a direct, face-to-face helping relationship. In fact, the effectiveness of such "counseling" by older volunteers compares favorably with that of paid professional social workers, for example (U_3 s of 66 to 80%; Gorey, 1996; Gorey, Thyer, & Pawluck, in press; Grenier & Gorey, 1998).

This integrative review's findings support the notions that engagement in meaningful volunteer activities probably positively affects nearly all older volunteers (8 of every 10) as well as nearly all of the people they serve (9 of every 10). Moreover, gerontological social work practice may be more effective—perhaps as much as 10 to 20 percent more so, as indicated by incident client improvement rates—when older volunteers concomitantly work with such clients. This review-generated inference remains to be substantiated (or refuted) with future practice research. For now, it seems quite clear that as an adjunct to the provision of professional human services, opportunities to enlist the assistance of this enormous resource—experienced older people who are willing and quite able to fill supportive helping roles—ought not be missed.

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