Social Sciences

Quantitative Assessment of the Impact of the Service-Learning Course "Mental Health and the Veteran Population: Case Study and Practicum" on Undergraduate Students

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Few studies have evaluated the effectiveness of service-learning courses, given that the field of service-learning is relatively new. Our study assesses the impact of the service-learning course "Mental Health and the Veteran Population: Case Study and Practicum" at Stanford University, which involved volunteer service in the geropsychiatric ward of the Menlo Park Veterans' Administration Hospital and an academic component. Fourteen students participated in the course and completed questionnaires detailing their pre- and post-course attitudes. The results suggest that service-learning significantly changed the attitudes of the students who participated, making them more comfortable with interacting with the elderly and mentally ill and more aware of societal misconceptions.

Direct service through volunteerism has been an integral part of our society for years. In fact, the US Department of Labor reported that approximately 65.4 million people volunteered through or for an organization at least once between September 2004 and September 2005. The study, conducted by the US Bureau of Labor Statistics, also demonstrated that community service involves individuals from a diverse segment of society – the amount of time spent on volunteering is comparable among men and women and among people of different ethnicities, ages, and religious backgrounds – and that the religious, educational, philanthropic, and social welfare groups involved in organizing community service are just as diverse as the actual volunteers (US Department of Labor, 2005).

Traditional volunteer service is distinct from service-learning. According to Timothy Stanton, Dwight Giles, Jr., and Nadinne Cruz in *Service-Learning: A Movement's Pioneers Reflect on Its Origins, Practice, and Future*, "service-learning programs should not just recruit students to volunteer in soup kitchens. They should also ask them to reflect on why people are hungry. Literacy volunteers should be asked to consider why there are so many illiterate people in an 'advanced society.'" Unlike traditional volunteer service, service learning calls for structured opportunities for reflection, which may entail pre-service preparation courses, field seminars, reflection workshops, and journaling. Whereas traditional volunteer service is based on a one-way model in which a charitable giver paternalistically gives to a receiver who lacks resources, service-learning evokes the concept of reciprocity between server and served (Stanton et al., 1999).

While volunteerism and direct-service are well-established, the related field of service-learning is comparatively new. The actual development of service-learning began in the 1960s when, across the nation, students were reacting strongly to the Vietnam War, racial tensions, inequities in education and income, and a host of community issues (Stanton et al., 1999). As activism evolved, community activists and educators "found themselves drawn to the idea that action in communities and structured learning could be combined to provide stronger service and leadership in communities and deeper, more relevant education for students" (Stanton et al., 1999). From this early, relatively unorganized movement, service-learning eventually become a recognized field; however, it was only in the 1980s and 1990s that service-learning courses, which integrate academics and service, were introduced.

Because service-learning courses were only recently developed, few studies have evaluated the impact of service-learning courses on students. Our study is unique in that it quantitatively evaluates the im-

pact of a service-learning course on students. To conduct this study, we designed and led a service-learning course titled "Mental Health and the Veteran Population: Case Study and Practicum" at Stanford University under the sponsorship of Clifford Barnett, PhD. This service-learning course involved: 1) direct service in the geropsychiatric ward of the Menlo Park Veterans' Administration Hospital; and 2) an academic component, which provided opportunities for structured reflection, guest lectures, and discussions of the political, social, and ethical issues surrounding mental illness and the veteran population.

Given the recent emergence of service-learning, the number of course assessment studies – and, in particular, the number of quantitative course assessment studies – is not large, making this study particularly relevant. Other studies on the impact of service-learning on college students, while few, differ from our study. A study at Dartmouth College examined the effects of a small-scale, very short-term service-learning experience on college undergraduates. It found that students participating in this experience, when compared to non-participating matched counterparts, reported maintenance of their sense of social responsibility, an increased sense of the meaningfulness of college, and an increased likelihood of choosing a service-related occupation (Reed et al., 2005). Another study involved a one-semester course and a separate service-learning project for students at Susquehanna University and found that student comments about the course were quite positive (Ellison and Radecke, 2005).

Providing a quantitative assessment of the impact of a service-learning course, which is a relatively new academic model, is important because it can suggest room for improvement, provide data on the benefits of service-learning, and help further legitimize the field. Our study differs from the Dartmouth study in that it involves a longer, more intensive service-learning experience. While the Susquehanna study asked students to evaluate the course with predominantly open-ended questions, our study quantitatively assesses the impact of service-learning courses on students. While qualitative, anecdotal assessment has many merits, we felt that a quantitative assessment had the potential to more precisely and thoroughly provide an indicator of course impact upon all students. Such an assessment of their impact is very relevant for the funding of service-learning programs, the expansion of service-learning programs at Stanford and other schools, and the potential of making service-learning courses required components of the student curriculum. Before conducting the study but after leading the course, our hypothesis was that the course would substantially change student views toward the elderly and the mentally ill.

Materials and Methods

Subjects

Fourteen students participated in the quarter-long (10-week) service-learning program. The students were Stanford undergraduates ranging from ages 18 to 21. Attendance at the lecture component of the course and participation in the service component of the course were monitored, and all students satisfactorily fulfilled both aspects of the program. All students completed and returned the survey (see Appendix A), which was done anonymously during the last course session.

Service-Learning Course Service Component

Carpools were arranged at several times throughout the week so that students could volunteer once per week for two hours for the duration of the course, and all volunteering occurred in the geropsychiatric ward of the Menlo Park Veterans' Administration (VA) Hospital. At the beginning of the class, an on-site orientation at the Menlo Park VA Hospital was conducted by VA staff. Topics covered included patient confidentiality and an overview of the layout of the hospital, and TB tests were also conducted.

Following this on-site orientation, each volunteer completed a survey detailing their personality traits, interests, and other relevant items. The survey was then provided to VA Hospital staff who matched each volunteer with two veterans whom they felt the volunteer would be especially compatible with, based on personal knowledge of the veteran's personality and interests and the student's answers to the survey. Students were asked to spend one hour per week with each of the veterans (during the same trip to the VA Hospital). Any problems encountered by the students were satisfactorily addressed by the VA staff.

Service-Learning Course Lecture Component

The lecture component of the service-learning course involved eight sessions, each one hour long. Guest speakers were invited to five of the eight sessions. The speakers included a professor of psychiatry, professor of philosophy, campus minister, professor of psychology, and professor of geriatrics. With the exception of the presentation by the professor of geriatrics, which took place at the Menlo Park VA Hospital, all other guest lectures took place at Stanford University. Students were given relevant reading material before each guest speaker and encouraged to ask questions during the presentations. The guest speakers all addressed the broad goals of the course by not only helping students understand the issues facing the elderly, veterans, and the mentally ill, but also by contextualizing the volunteer experience and environment for students. Topics covered by the guest speakers included theories about schizophrenia, issues of autonomy and medical consent among those with Alzheimer's and related ailments, background information about the number of mentally ill veterans, a survey of cross-cultural perspectives on mental illness, and extensive information about the aging process and its correlations with mental illness.

There were three sessions at which guest speakers were not present. The first of these sessions (the very first session of the course) included introductions, an explanation of the structure and format of the course, and a group discussion on a

current newspaper article about veterans. Also, students were asked, as a group, to list stereotypes they associated with the elderly, the mentally ill, and the elderly mentally ill in a Venn diagram. During the second session at which guest speakers were not present (the second-to-last course session), students had an opportunity for structured reflection about their experiences, which involved reading excerpts from journals they had kept throughout the quarter detailing their experiences at the VA Hospital. During this session, several students mentioned how the course had enhanced their academic experience, shed new light on their desire to be doctors, and made them interested in learning more about mental health and the veteran population.

During the third session at which guest speakers were not present (the very last session of the course), students were shown the Venn diagram they had created at the beginning of the quarter. As a group, students discussed whether they thought these stereotypes were justified now, given their new quarter-long experience with the patients at the VA Hospital.

Statistical Analysis

All 14 students who completed the service-learning course completed a comprehensive questionnaire (see Appendix A) detailing their pre- and post-course attitudes during the final session of the course. The questionnaire asked students to rank their "before"-course and "after"-course attitudes using a 1-10 scale. Results for each question were averaged, and statistical analyses were performed using Student's t test. P-values of less than 0.01 were considered statistically significant.

	Question (Scale Used)	Before	After	p-value
1	How comfortable do you feel working with the mentally ill? (10 – very comfortable; 5 – somewhat comfortable; 1 – not comfortable at all)	4.79	8.64	$p < 0.01$
2	The mentally ill are people I would want to regularly spend time with. (10 – strongly agree; 5 – neutral; 1 – strongly disagree)	3.93	7.29	$p < 0.01$
3	I believe that, in addition to medication-based therapies, socialization and recreation therapies are useful to treat the mentally ill. (10 – strongly agree; 5 – neutral; 1 – strongly disagree)	7.91	9.64	$p < 0.01$
4	When compared to diseases or conditions such as diabetes and cancer, mental illness carries an additional stigma in society. (10 – strongly agree; 5 – neutral; 1 – strongly disagree)	8.36	9.14	$p = 0.229$
5	If yes to the previous question (rating of 6-10), this stigma is justified. (10 – strongly agree; 5 – neutral; 1 – strongly disagree)	5.31	3.00	$p < 0.01$
6	Destigmatizing mental illness through education, awareness, and exposure programs is necessary for better care and understanding of mental illness. (10 – strongly agree; 5 – neutral; 1 – strongly disagree)	6.64	8.91	$p < 0.01$
7	How comfortable do you feel working with the elderly? (10 – very comfortable; 5 – somewhat comfortable; 1 – not comfortable at all)	6.57	9.14	$p < 0.01$
8	How receptive was your patient the first time you visited him/her? (before) (10 – very receptive; 5 – somewhat receptive; 1 – not receptive at all) How receptive was your patient the most recent time your visited him/her? (after) (10 – very receptive; 5 – somewhat receptive; 1 – not receptive at all)	5.93	8.93	$p < 0.01$
9	I am interested in the career fields of psychiatry and mental health care. (10 – strongly agree; 5 – neutral; 1 – strongly disagree)	4.62	5.46	$p < 0.01$

Table I. This table shows the averaged results and p-values for each of the nine questions asked of the 14 students.

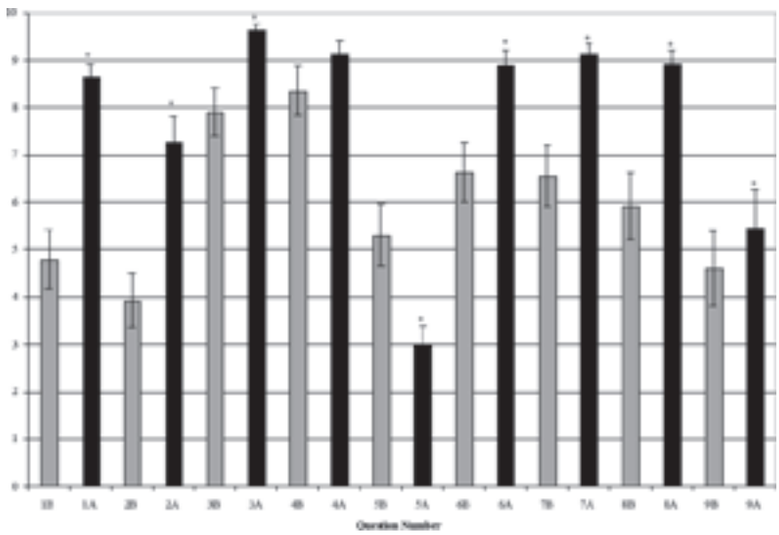

Figure 1. This graph depicts the results and standard deviations for each of the nine questions asked of the students. 1B refers to question 1 and "before"-course attitudes, 1A refers to question 1 and "after"-course attitudes, etc. Asterisks indicate that the before-after difference is statistically significant at a p-value less than 0.01.

All 14 students answered each of the 11 questions with the exception of Question 3 (11 students), Question 5 (13 students), and Question 6 (11 students). Of the 14 students, 13 students agreed (rating of 6, 7, 8, 9, or 10) with the statement in Question 4, so only those 13 students answered the following question (Question 5).

Discussion

Students in the service-learning course were asked nine questions that involved an evaluation of before and after attitudes. Student responses significantly changed after the experience, as compared to before, for eight of the nine questions (p-value < 0.05), suggesting that the service-learning experience affected their attitudes toward service and the elderly. In general, after the service-learning experience, students were more comfortable working and interacting with the elderly and mentally ill. Most reported having positive interactions with the patients they visited, noting that their patients had become more receptive over time. In fact, as compared to their before assessment, students acknowledged after their experience wanting to regularly spend time with mentally ill patients. Our results are consistent with the findings from a study conducted at California State University, Northridge, which found that students who initially had negative attitudes toward older adults significantly improved their attitudes after a service-learning experience (Beling, 2003).

After the service-learning course, students became more accepting of the use of socialization and recreation therapies to treat the mentally ill, two commonly used techniques at the Menlo Park VA Hospital. All acknowledged that destigmatizing mental illness through education, awareness, and exposure programs are necessary for better care and understanding of mental illness; all found the lectures about mental illness to be helpful in better understanding their patients and their needs; all found the service-learning visits to the hospital beneficial. Interestingly, many more students expressed an interest in the career fields of psychiatry and mental health care after the service-learning experience than before. Other studies (Ellison and Radecke, 2005; Reed, et al., 2005), in fact, also found that students who engage in service-learning experiences report an increased likelihood of choosing a service-related occupation.

The only question for which student responses did not change significantly after the experience involved an attitude toward the stigma that mental illness carries in society. As compared to before, post-course student responses did not change significantly in evaluating the statement, "When compared to diseases or conditions such as diabetes and cancer, mental illness carries an additional stigma in society." This lack of change is likely due to the fact that, while individual student perceptions of mental illness changed, students recognized that societal attitudes did not, thus continuing to strongly agree with the statement that mental illness does indeed carry an additional stigma. Students, however, became less accepting of the notion that this stigma is justified.

Future directions include conducting an assessment of attitude changes in students who volunteer at the hospital but who have not participated in any academic experience related to that service, which would allow us to compare the effects of traditional direct-service volunteering and service-learning. Additionally, we wish to assess the impact of service-learning on a more diverse group of students. Because we only looked at students who chose to enroll in the course, we looked at a fairly self-selected group in terms of their interest and receptiveness to volunteering with and learning about the elderly and mentally ill. It may be the case that such students are more likely to change their attitudes or report positive experiences than students in the general population. Naturally, it would be hard to design a course and concomitant study that avoids this problem, but it might be possible if a future course were mandatory.

A qualifying remark must be made about the methodology. We asked students to detail both their pre-course and post-course attitudes retrospectively. We are well-aware that the standard methodology would be to give the survey prospectively at the beginning of the course and then retrospectively at the end of the course. We would have preferred to do this, but we were unable to do so because we did not decide to do a quantitative assessment of the effect of the course until after it was almost over. Although giving the surveys in this fashion may be preferable, we feel that our methodology does have some significant advantages. By giving the entire survey retrospectively and having students detail both their pre-course and post-course attitudes retrospectively, students had a chance to compare their pre-course attitudes to their post-course attitudes with an adequate basis for comparison.

As a final caveat, we must acknowledge that because our study only focused on one particular service-learning experience, there is a limit to how much we can reasonably extrapolate to service-learning experiences in general. Presumably, other service-learning experiences that involve different opportunities have different dynamics and attract a different demographic of students. It may be the case that our study would have been somewhat different in its results had we looked at students volunteering with the homeless, with severely ill children, or other populations. Future studies may take a similar approach to ours but look at several different service-learning courses. Overall, however, we feel that our study's conclusions about the benefits of our service-learning course on student attitudes have considerable general applicability.

Taken together, our results suggest that service-learning significantly changed the attitudes of the students participating in the experience, making them more comfortable with working and interacting with the elderly and mentally ill and more aware of societal misconceptions. These findings strongly support the value of service-learning experiences, emphasizing the need for the integration of service and

Appendix A

Questionnaire

How comfortable do you feel working with the mentally ill?
(10 – very comfortable; 5 – somewhat comfortable; 1 – not comfortable at all)

BEFORE YOU BEGAN VOLUNTEERING
1 2 3 4 5 6 7 8 9 10 No opinion
NOW
1 2 3 4 5 6 7 8 9 10 No opinion

The mentally ill are people I would want to regularly spend time with.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

BEFORE YOU BEGAN VOLUNTEERING
1 2 3 4 5 6 7 8 9 10 No opinion
NOW
1 2 3 4 5 6 7 8 9 10 No opinion

I believe that, in addition to medication-based therapies, socialization and recreation therapies are useful to treat the mentally ill.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

BEFORE YOU BEGAN VOLUNTEERING
1 2 3 4 5 6 7 8 9 10 No opinion
NOW
1 2 3 4 5 6 7 8 9 10 No opinion

When compared to diseases or conditions such as diabetes and cancer, mental illness carries an additional stigma in society.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

BEFORE YOU BEGAN VOLUNTEERING
1 2 3 4 5 6 7 8 9 10 No opinion
NOW
1 2 3 4 5 6 7 8 9 10 No opinion

If yes to the previous question, this stigma is justified.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

BEFORE YOU BEGAN VOLUNTEERING
1 2 3 4 5 6 7 8 9 10 No opinion
NOW
1 2 3 4 5 6 7 8 9 10 No opinion

Destigmatizing mental illness through education, awareness, and exposure programs is necessary for better care and understanding of mental illness.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

BEFORE YOU BEGAN VOLUNTEERING
1 2 3 4 5 6 7 8 9 10 No opinion

NOW
1 2 3 4 5 6 7 8 9 10 No opinion

How comfortable do you feel working with the elderly?
(10 – very comfortable; 5 – somewhat comfortable; 1 – not comfortable at all)

BEFORE YOU BEGAN VOLUNTEERING
1 2 3 4 5 6 7 8 9 10 No opinion
NOW
1 2 3 4 5 6 7 8 9 10 No opinion

How receptive was your patient the first time you visited him/her?
(10 – very receptive; 5 – somewhat receptive; 1 – not receptive at all)

1 2 3 4 5 6 7 8 9 10 No opinion

How receptive was your patient the most recent time your visited him/her?
(10 – very receptive; 5 – somewhat receptive; 1 – not receptive at all)

1 2 3 4 5 6 7 8 9 10 No opinion

My patient looked forward to my visits.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

1 2 3 4 5 6 7 8 9 10 No opinion

The lectures about mental illness helped me better understand my patient(s) and his/her/their needs.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

1 2 3 4 5 6 7 8 9 10 No opinion

The service-learning visits to the VA Hospital were beneficial.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

1 2 3 4 5 6 7 8 9 10 No opinion

I am interested in the career fields of psychiatry and mental health care.
(10 – strongly agree; 5 – neutral; 1 – strongly disagree)

BEFORE YOU BEGAN VOLUNTEERING
1 2 3 4 5 6 7 8 9 10 No opinion
NOW
1 2 3 4 5 6 7 8 9 10 No opinion

References

1. Beling J (2003). Effect of service-learning on knowledge about older people and faculty evaluations in a physical therapy class. *Gerontol Geriatr Educ*.: 24(1), 31-46.

2. Department of Labor (2005). http://www.bls.gov/cps/.

3. Ellison NM and Radecke MW (2005). An undergraduate course on palliative medicine and end-of-life issues. *J Palliat Med*: 8(2), 354-62.

4. Reed VA, Jernstedt GC, Hawkely JK, Reber ES, and DuBois CA (2005). Effects of a small-scale, very short-term service-learning experience on college students. *J Adolesc*: 28(3), 359-68.

5. Stanton T, Giles DE, Cruz NI (1999). *Service Learning: A Movement's Pioneers Reflect on its Origins, Practice, and Future*. Jossey-Bass Publishers.

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Manisha Bahl and Jason Hom graduated from Stanford University in 2005 and are currently first-year medical students at the University of California, San Francisco. While at Stanford, they were actively involved in United Students for Veterans' Health (USVH), a national program whose mission is to enrich the quality of life of hospitalized veterans. Based on their involvement with USVH, Manisha and Jason designed and led the service-learning course studied in this paper in Spring 2003 under the guidance of Dr. Clifford Barnett (Anthropological Sciences). The course was based on a similar one offered by Helene Mik in Winter 2002.