

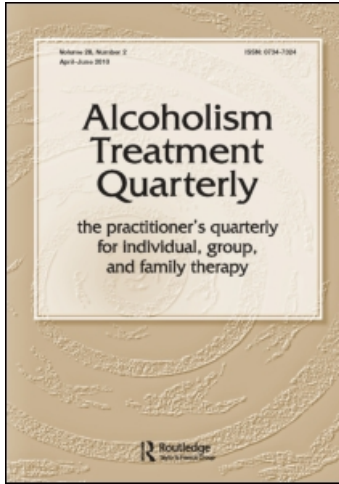
This article was downloaded by: [Case Western Reserve University]

On: 19 January 2011

Access details: Access Details: [subscription number 930595995]

Publisher Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Alcoholism Treatment Quarterly

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t792303970>

Alcoholics Anonymous-Related Helping and the Helper Therapy Principle

Maria E. Pagano^a; Stephen G. Post^b; Shannon M. Johnson^a

^a Department of Psychiatry, Division of Child Psychiatry, Case Western Reserve University School of Medicine, Cleveland, Ohio, USA ^b Center for Medical Humanities, Compassionate Care, and Bioethics, School of Medicine, Stony Brook University, Long Island, New York, USA

Online publication date: 19 January 2011

To cite this Article Pagano, Maria E. , Post, Stephen G. and Johnson, Shannon M.(2011) 'Alcoholics Anonymous-Related Helping and the Helper Therapy Principle', *Alcoholism Treatment Quarterly*, 29: 1, 23 — 34

To link to this Article: DOI: 10.1080/07347324.2011.538320

URL: <http://dx.doi.org/10.1080/07347324.2011.538320>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Alcoholics Anonymous-Related Helping and the Helper Therapy Principle

MARIA E. PAGANO, PhD

*Case Western Reserve University School of Medicine, Department of Psychiatry,
Division of Child Psychiatry, Cleveland, Ohio USA*

STEPHEN G. POST, PhD

*Center for Medical Humanities, Compassionate Care, and Bioethics, School of Medicine,
Stony Brook University, Long Island, New York USA*

SHANNON M. JOHNSON, BA

*Case Western Reserve University School of Medicine, Department of Psychiatry,
Division of Child Psychiatry, Cleveland, Ohio USA*

The helper therapy principle (HTP) observes the helper's health benefits derived from helping another with a shared malady. The HTP is embodied by the program of Alcoholics Anonymous as a method to diminish egocentrism as a root cause of addiction. This article reviews recent evidence of the HTP in alcohol populations, extends to populations with chronic conditions beyond addiction, and concludes with new directions of empirical inquiry.

KEYWORDS *Service, AA-related helping, substance use disorders, 12-Step programs*

Supported in part by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) grant K01 AA015137 awarded to Dr. Pagano and the John Templeton Foundation grant #13591.

In the spirit of full disclosure and in compliance with all (ACCME) Essential Areas and Policies, the faculty for this Continuing Medical Education article were asked to complete a statement regarding all relevant financial relationships between themselves or their spouse/partner and any commercial interest (i.e., any proprietary entity producing health care goods or services consumed by, or used on, patients) existing within the 12 months prior to completion of this article. The CME Institute has resolved any conflicts of interest that were identified. The disclosures are as follows: The authors have no relevant personal affiliations or financial relationships with any proprietary entity producing health care good consumed by, or used on, patients to disclose in connection with this article.

Address correspondence to Maria E. Pagano, PhD, Case Western Reserve University School of Medicine, Department of Psychiatry, Division of Child Psychiatry, 10524 Euclid Avenue, Cleveland, OH 44106. E-mail: maria.pagano@case.edu

The helper therapy principle (HTP) refers to the theory that when helpers help a fellow sufferer they help themselves. The HTP is reflected in the stated purpose of Alcoholics Anonymous (AA): “Our primary purpose is to stay sober and help other alcoholics to achieve sobriety” (A.A. World Services [A.A.], 2001, p. 100). The famous 12th Step of the 12 Steps of AA exhorts the alcoholic to help others who have the same illness. Helping other alcoholics helps the alcoholic helper stay on the path of recovery. The health benefits for the helper, in the context of AA and more broadly, deserve further analysis. Although service is one of the three dimensions of the AA program as originally designed in 1939, public awareness of the prominence of service in recovery is low. This article begins with an overview of AA-related helping (AAH) applied to other alcoholics, then builds outward to apply the HTP to other clinical populations, then reviews the health benefits of helping others in general, and concludes with new directions of empirical inquiry. The overview of AAH is intended to provide the reader with the AA perspective on the role of helping in addiction recovery. For the purposes of interpretation of reviewed empirical work, we will refer to Cohen’s effect size d (Cohen, 1988), whereby $d = .2$ is “small,” $d = .5$ is “medium,” $d = .8$ is “large.” Conversion of data and statistical results into effect d -size estimates was accomplished using formulas by Glass, McGaw, and Smith (1981) and Cohen (1988). In the social sciences, a hazard ratio of 1.5 is “medium” and 2.0 is “large.”

AAH: PRACTICE AND BENEFITS

Practice

The book *Alcoholics Anonymous: The Story of How Many Thousands of Men and Women Have Recovered from Alcoholism* is called the “Big Book” in the AA movement. The opening segment of this classic grassroots treatment manual begins with the word *We*. The essence of the program is captured in the phrase, “We work out our solution on the spiritual as well as an altruistic plane” (A.A., 2001, p. xxvi). For AA members, the solution lies in the “we” of fellowship, and the recognition of the fact that “I” cannot improve myself alone (A.A., 2001, p. 201).

The 12th Step transposes this language of “we” into the principle of service: “Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs” (A.A., 2001, p. 60). The Big Book is abundantly clear: “Our very lives, as ex-problem drinkers, depend upon our constant thought of others and how we may help meet their needs” (A.A., 2001, p. 20). Thus, it is clear that sobriety is gained in AA by constant attention to helping other alcoholics. AAH behaviors include acts of good citizenship as a member of a 12-Step

program (i.e., putting away chairs at meetings, donating money), formal service positions available in AA (i.e., public outreach, etc.), and transmitting personal experience to another fellow sufferer (i.e., sharing one's story or progress with step work; Pagano et al., 2009).

The word *constant* indicates that this concern with helping other drinkers must become an enduring daily practice to keep the disease of addiction in remission. "Helping others is the foundation stone of your recovery. A kindly act once in a while isn't enough. You have to act the Good Samaritan every day, if need be" (A.A., 2001, p. 97). Of course, this admonition is balanced by the recognition that, "We are not saints. The principles we have set down are guides to progress. We claim spiritual progress rather than spiritual perfection" (A.A., 2001, p. 60). Progress is made by the daily pruning of egocentrism, which blocks out the sunlight of the spirit and essential contact with a God of one's understanding. "Selfishness—self-centeredness! That, we think, is the root of our troubles. . . . Above everything, we alcoholics must be rid of this selfishness. We must, or it kills us" (A.A., 2001, p. 62). This egocentrism manifests itself beyond the most evident symptom of drinking; the Big Book refers to selfish resentment, dishonesty, self-seeking, and unkindness.

But we couldn't get rid of alcohol unless we made other sacrifices. Big-shot-ism and phony thinking had to go. We had to toss self-justification, self-pity and anger right out the window. We had to quit the crazy contest for personal prestige and big bank balances. We had to take personal responsibility for our sorry state and quit blaming others for it. (Wilson, 1988, pp. 210–211)

The treatment of alcoholism's root cause lies in a shifting away from selfishness and self-centeredness—a shift best achieved through active helping of other alcoholics.

Members of AA give many reasons for engaging in AAH. Robert Smith (Dr. Bob), one of the cofounders of AA, gave four reasons: (1) "a sense of duty," (2) "it is a pleasure," (3) "because in so doing, I am paying my debt to the man who took time to pass it on to me," and (4) "because every time I do it, I take out a little more insurance for myself against a slip" (A.A., 2001, p. 181). AA doctrine asserts that "nothing will so much insure immunity from drinking as intensive work with other alcoholics" (A.A., 2001, p. 89). Although receiving a direct benefit of another day sober, a recovering alcoholic gives without expectation of social reciprocity from the recipient. As described in the book *The Twelve Steps and Twelve Traditions*, "this is indeed the kind of giving that actually demands nothing. He does not expect his brother sufferer to pay him back, or even to love him" (A.A., 1981, p. 109). AA members state, "Though they knew they must help other alcoholics if they would remain sober, that motive became secondary. It was transcended

by the happiness they found in giving themselves for others” (A.A., 2001, p. 159).

Service as a pillar in the foundational framework of the 12-Step program can be traced to the influence of the Oxford Group, founded by Frank Buchman. The Oxford Group was an American spiritual movement that sought to revive the power of first-century Christianity (not to be confused with the Oxford Movement of England in the second half of the 19th century). Dr. Bob and William Wilson (Bill W.), the other cofounder of AA, subscribed to much of the ideology of this popular Christian revival community. Group members sought a spiritual regeneration through the “four absolutes” of absolute honesty, absolute unselfishness, absolute purity, and absolute love.

Although the Oxford Group was not designed specifically for alcoholics, there were alcoholics who became sober in the organization, including Bill W. As a generalization, active alcoholics have been observed to be “childish, emotionally sensitive, and grandiose” (A.A., 1981, p. 122), and to lack insight into the impact of their actions on others. “King Baby” is a colloquial term for describing this cluster of traits. Rigorous self-examination, confession of character deficits, making restitution for harms done, giving without thought of reward, and seeking guidance from God in all things were core practices of the Oxford Group. These practices of self-examination and making amends encouraged Bill W. to get involved in the Oxford Group. When Bill W. and Dr. Bob first met in Akron, Ohio, in May 1935, both were affiliated with the Oxford Group movement. Dr. Bob and Bill W. worked together and formulated what would become the 12 Steps. While formulating these steps, Bill W. convinced Dr. Bob that the idea of service was missing from his program of recovery. Once Dr. Bob adopted service into his program of recovery, he remained sober until his death in 1950 (A.A., 1980).

AA became its own entity in the summer of 1939 when it separated from the Oxford Group (A.A., 1997). Although spirituality remained important, Bill W. and Dr. Bob separated from the Oxford Group because they wanted a nondenominational program of recovery. They also emphasized the high importance of service as applied to fellow alcoholics. In addition to helping other alcoholics, they promoted helping others in general, as captured in the language of the 12th Step, “practice these principles in all our affairs” (A.A., 1981, p. 60).

Benefits

Although the 12 Steps have been practiced daily by recovering alcoholics for decades, empirical support for the link between helping others in AA and positive drinking outcomes only emerged in 2004 (Pagano, Friend, Tonigan, & Stout, 2004). Using data from Project MATCH, one of the largest clinical trials in alcohol research, Pagano and colleagues (2004) demonstrated that alcoholics who helped others during chemical dependency treatment were

more likely to be sober in the following 12 months. Specifically, 40% of those who helped other alcoholics avoided taking a drink in the 12 months following a 3-month chemical dependency treatment period; only 22% of those who did not help others stayed sober for twelve months ($d = .5$; Pagano et al., 2004). In a second investigation involving data from Project MATCH, Pagano and colleagues (Pagano, Zemore, Onder, & Stout, 2009b) demonstrated that 94% of alcoholics who began to help other alcoholics at any point during the 15-month study period continued their helping behaviors. Also, depression levels in alcoholic helpers significantly diminished once they started helping others (Pagano et al., 2009b). Lastly, in a longitudinal study of body dysmorphic disorder (BDD), individuals with comorbid alcohol dependency disorder who engaged in service were significantly more likely to get sober and to remit from BDD than those with low service participation ($d = .8$, Pagano, Phillips, Stout, Menard, & Piliavin, 2007). No distinguishing demographic or clinical characteristics have been shown to distinguish alcoholic helpers from nonhelpers. This implies that no special demographic credentials are required to help. These studies indicate that among alcoholics, AAH and giving general help to others has positive effects on drinking outcomes and mental health variables. These findings suggest that getting active in service helps addicts/alcoholics become sober, stay sober, and is applicable to all treatment-seeking individuals with a desire to not drink or use drugs.

THE HTP: PRACTICE AND BENEFITS

Practice

The HTP can be traced back to the “wounded healer” tradition, a belief that a sufferer of a certain malady is particularly adept and impassioned in assisting fellow sufferers (White, 2000). The HTP first emerged in academic circles with a widely cited and often reprinted article by Frank Riessman (1965). He defined the “helper therapy” principle on the basis of his observations of AA and similar self-help groups that had adopted AA’s 12-Step program. Riessman observed that the act of helping another often heals the helper more than the recipient. In the early 1970s, the HTP garnered a great deal of attention. The shared problem between sufferers could be nicotine addiction, substance abuse, depression, a medical condition such as diabetes, or mental impairment such as post-traumatic stress disorder (PTSD). Regardless of the problem, members of a mutual help group are deeply engaged in helping one another, in part because they are motivated by an explicit interest in their own healing. A shift effect is theorized to occur, whereby the giver/helper gains a sense of meaning, self-worth, a social role, and health enhancement (Schwartz & Sendor, 1999).

Helping others who have the same chronic problem has benefits for mental illnesses beyond substance use disorders. A major report on treating mental illness emphasized the role of helping others through involvement in mutual help groups (New York State, 2006). This recommendation is not novel and was popular in the “moral treatment” era in the American asylums of the 1830s and beyond. In this treatment, persons with “melancholy” (depression) and other ailments were directly engaged in prosocial helping activities for others in their asylum communities (New York State, 2006). Under the leadership of Dr. Thomas Scattergood and Dr. Thomas Kirkbride, the great asylums of the eastern seaboard, for example, Pennsylvania Hospital for the Insane, were established. Residents could contribute prosocially to the living conditions of other patients through baling the hay, milking the cows, painting the barns, and so on. Kirkbride was also a cofounder of the American Psychiatric Association (APA), and helping others was operationalized as a treatment module by APA founders (Tomes, 1984).

Today’s practice of the HTP is adopted by many mental health communities, such as the International Center for Clubhouse Development (ICCD) and Oxford House communities (Magnolia Clubhouse, 2009). The Magnolia Clubhouse in Cleveland, Ohio, a residential community based upon the ICCD model, rehabilitates adults with chronic mental illnesses such as depression. The Clubhouse operates on the principle that, “meaningful work with others is rehabilitative” (Magnolia Clubhouse, 2009). Clubhouse members choose to participate in a variety of service activities, such as meal preparation, serving in the snack shop, helping with hospitality, writing letters, handling finances, or groundskeeping. Since its inception in 1975, the Oxford House, a parallel movement to the ICCD, provides homes each year to more than 24,000 individuals in recovery. With no professional staff, these recovery co-ops operate from democratic self-management, financial self-support of each home, and mutual aid. These recovery homes provide opportunities for the practice of the 12th Step.

Benefits

The HTP has demonstrated efficacy in a variety of clinical populations (Arnstein, Vidal, Well-Federman, Morgan, & Caudill, 2003; Schwartz & Sendor, 1999). Patients suffering from multiple sclerosis (MS) were trained to provide compassionate, unconditional, positive regard for other MS sufferers through monthly, 15-minute supportive telephone calls; helpers showed improvements in self-confidence, self-esteem, depression, and role functioning (Schwartz et al., 2009). Individuals with chronic pain who counseled other patients with pain reported a significant decrease in their own symptoms of pain and depression ($d = 0.2-0.3$, Arnstein et al., 2003). Providing peer support to others may allow helpers to break away from patterns of self-

reference, allowing a shift in quality of life, personal meaning, and experiences of ailments.

These numerous contemporary and historical examples consistently indicate that the helper experiences healing when he or she helps another who is living with the same chronic condition. Although this research demonstrates clear benefit to the helper, our recommendations to clients with regard to service involvement remain unclear. For example, how much and for how long should a client help to derive the sobriety benefit? Does helping a fellow sufferer in general (i.e., locate a job) give the same benefit as programmatic AAH activities? Are there mental health benefits to expect from AAH other than continued sobriety (i.e., reduced depression)? Does it matter if clients help others in general (i.e., family members) or do they need to help a fellow sufferer for the helper health benefit to manifest? We now review the application of the HTP applied more broadly to those who do not share the same condition of the helper.

GENERAL HELP TO OTHERS: PRACTICE AND BENEFITS

Practice

A large body of research in the social sciences suggests that the HTP applies more widely to benefit all humans. When we reach out to others, we are helping individuals with the same vulnerabilities that threaten our own lives—for example, brokenness, quiet desperation, loss of meaning, illness, financial downturns, and mortality.

Evolutionary psychology offers an explanation for the HTP. Group selection theory suggests a powerfully adaptive connection between widely diffuse altruism within groups and group survival (Post, 2007). Members of a successful group would likely be innately oriented to other-regarding behaviors. Anthropologists point out that early egalitarian societies practiced “ecological altruism,” where helping others was a social norm of citizenship, rather than an act of volunteerism. At the individual level, a sense of belonging is increased through group participation. Fromm’s (1956) theory of human character asserts that giving is the highest expression of potency, where one gives to feel alive (p. 21).

Mediating circumstances can diminish the benefits of the HTP. For example, the health benefit derived from helping may be compromised when practitioners treat patients in a “one-down” mentality. Further, the HTP is eroded when the helper is overwhelmed (Post, 2007). Empathic overarousal has been observed among caregivers locked into situations requiring intense empathy and generous actions. Health care providers who interact daily with trauma survivors, Red Cross workers who are involved in helping the victims

of major catastrophes, activists who work with the poorest of the poor, and pastors who are providing compassion and support for needy congregants around the clock can suffer what has been described as “compassion fatigue” (Figley, 1995).

In practice, cautionary guidelines have been formed to avoid helper’s burnout. For example, AA literature clearly recommends newcomers and old-timers alike to practice moderation in AAH in a balanced lifestyle. From its inception, AA has been clear that helping others does not translate to carrying the burdens of another: “Those of us who have tried to shoulder the entire burden and trouble of others find we are soon overcome by them” (A.A., 2001, p. 132). Further, the principle of self-care first has been one of the foundations of AA: attend first to self when hungry, angry, lonely, or tired (designated by the acronym HALT)—then help others (A.A., 1998). However, the risk of “burnout” and “fatigue” is low for alcoholics who are characterized by defiance and self-involvement (A.A., 1981, p. 5).

Benefits

A large body of evidence of the health and mental health benefits derived from providing general help to others has accumulated over the past two decades. The normative populations studied to date tend to be the very young (children or adolescents) or very old (elderly or retirees). The most commonly studied forms of general help are physical giving (i.e., volunteering time, giving clothing, food, or blood), or emotional giving (i.e., giving comfort or compassionate listening). The health outcome derived from general help to others with the most empirical support is longevity, with effect sizes ranging from medium to large ($d = 0.5$ – 0.8 ; Harris & Thoresen, 2005; Medalie, Stange, Zyzanski, & Goldbourt, 1992). Other health outcomes with smaller effect size estimates ($d = 0.2$) include improved physical functioning (Luoh & Herzog, 2002; Moen, Dempster-McClain, & Williams, 1989), and lowered stress hormones (Field, Hernandez-Reif, Quintino, Schamberg, & Kuhn, 1998). In terms of mental health benefits, outcomes with the most empirical support include higher self-esteem ($d = 0.2$ – 0.5 ; Barber, Eccles, & Stone, 2001), greater life satisfaction ($d = 0.4$; Hunter & Linn, 1980–1981), and less depression ($d = 0.5$; Hunter et al., 1980–1981; Musick & Wilson, 2003). General help to others also generates social benefits, such as fewer arrests/delinquent acts ($d = 0.2$; Barber et al., 2001) and higher rates of college attendance ($d = 0.4$; Eccles & Barber, 1999). More detailed reviews are provided elsewhere (Piliavin & Charng, 1990; Post, 2007). Lastly, there is evidence to suggest that in certain instances, giving help generates more benefit to individuals than receiving help (Brown, Nesse, Vonokur, & Smith, 2003; Schwartz et al., 2009).

DISCUSSION

In the 21st century, empirical evidence in addiction research emerged to support the age-old wisdom that helping others helps the helper. Religious texts have long exhorted such behavior, primarily for the sake of others, but secondarily for the sake of self (Neusner & Chilton, 2005). Helping others in the program of AA has forged a therapy based on the kinship of common suffering, a social pioneering having a vast potential for the myriad other ills of mankind. A large body of research supports the HTP in clinical populations sharing a chronic condition beyond addiction, such as AIDS or pain. When humans help others regardless of a shared condition, they appear to live longer and happier lives.

The implications to psychiatric care are to not lose sight of the HTP in our treatment modalities. Just as physical trainers cannot perform the exercises for their clients, clinicians cannot give the muscle of service participation and its associated health benefits to patients. Our care practices may consider instead emphasizing the helper benefits from helping and explicitly encourage AAH participation amongst patients with alcoholism or drug addiction.

Although our understanding of the HTP in addiction research has advanced, there remains no real consensus on what peer helping is. Studies to date have adopted rather heterogeneous approaches to defining helping (Zemore & Pagano, 2008). If we are to prescribe AAH to alcoholic patients, we need clarification on the specific behaviors to encourage, to whom to give service, and what dose and duration to recommend. Clearly, getting active in service appears beneficial in early recovery as well as ongoing recovery. Future research funded by the John Templeton Foundation is underway to address these questions among rarely studied minor populations in early stages of the disease of addiction (John Templeton Foundation Grant #13591).

The etiology of prosocial behaviors in substance dependent youth is a promising area for research. Youth in particular have an enormous potential to benefit from actively participating in service as part of their treatment. The majority of young adults with severe addiction, as well as older adults in later stages of this progressive illness, began experimenting with alcohol and or drugs prior to age 13 (Altose, Davis, Tager, & Pagano, 2009; Donovan, 2004). AAH may promote improved alcohol outcomes earlier in life while naturally facilitating normal developmental transitions by furthering youths' sense of self-worth, leadership skills, and validation of inner experiences. In the past 5 years, National Institute on Alcohol Abuse and Alcoholism has shifted toward understanding addiction as a brain disease. Advances in brain imaging research suggest the anterior insula as the brain region responsible for compassion and its structural growth occurring in adolescence (Holden, 2004). Alcohol and drug use may stunt growth in this area, leading to

deficiencies in other-oriented behaviors that contribute to the progressive disease of addiction. Burgeoning work in alcohol genetic research highlights the high tolerance to alcohol and drugs observed among alcoholics and drug addicts (Schuckit et al., 1999). The Anhedonia model challenges the view of addiction as a moral problem but rather views it as dysregulated interoception (Paulas, Tapert, & Schulties, 2009). Whether AAH can generate enough of the “helper high” to satisfy an alcoholic’s need to feel good is a question for future research (Luks, 1991).

REFERENCES

- A.A. World Services. (1980). *Dr. Bob and the good oldtimers*. New York: Alcoholics Anonymous World Services.
- A.A. World Services. (1981). *Twelve steps and twelve traditions*. New York: Alcoholics Anonymous World Services.
- A.A. World Services. (1997). *Alcoholics Anonymous comes of age*. New York: Alcoholics Anonymous World Services.
- A.A. World Services. (1998). *Living sober*. New York: Alcoholics Anonymous World Services.
- A.A. World Services. (2001). *Alcoholics Anonymous: The story of how many thousands of men and women have recovered from alcoholism* (4th ed.). New York: Alcoholics Anonymous World Services.
- Altose, B., Davis, M., Tager, S., & Pagano, M. (2009, October). *Predictors of pre-teen substance use in substance dependent boys and girls*. Paper presented at the 56th annual meeting of the American Academy of Child and Adolescent Psychiatry, Honolulu, Hawaii.
- Arnstein, P., Vidal, M., Well-Federman, C., Morgan, B., & Caudill, M. (2003). From chronic pain patient to peer: Benefits and risks of volunteering. *Pain Management Nurses*, 3, 94–103.
- Barber, B. L., Eccles, J. S., & Stone, M. R. (2001). Whatever happened to the jock, the brain, and the princess? Young adult pathways linked to adolescent activity involvement and social involvement. *Journal of Adolescent Research*, 16, 429–455.
- Brown, S., Nesse, R. M., Vonokur, A. D., & Smith, D. (2003). Providing social support may be more beneficial than receiving it: Results from a prospective study of mortality *Psychological Science*, 14, 320–327.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Donovan, J. E. (2004). Adolescent alcohol initiation: A review of psychosocial risk factors. *Journal of Adolescent Health*, 35, 7–18.
- Eccles, J. S., & Barber, B. L. (1999). Student council, volunteering, basketball, or marching band? What kind of extracurricular involvement matters? *Journal of Adolescent Research*, 14, 10–43.
- Field, M., Hernandez-Reif, M., Quintino, O., Schamberg, S., & Kuhn, C. (1998). Elder retired volunteers benefit from giving massage therapy to infants. *Journal of Applied Gerontology*, 17, 229–239.

- Figley, C. R. (1995). *Coping with secondary traumatic distress disorder in those who treat the traumatized*. New York, NY: Brunner/Mazel.
- Fromm, E. (1956). *The art of loving*. New York, NY: Harper and Row.
- Glass, G. V., McGaw, B., & Smith, M. L. (1981). *Meta-analysis in social research*. Beverly Hills, CA: Sage.
- Harris, A. H., & Thoresen, C. E. (2005). Volunteering is associated with delayed mortality in older people: Analysis of the Longitudinal Study of Aging. *Journal of Health Psychology, 10*, 739–752.
- Holden, C. (2004). Imaging studies show how the brain thinks about pain. *Science, 20*, 1121.
- Hunter, K. I., & Linn, M. W. (1980–1981). Psychosocial differences between elderly volunteers and non-volunteers. *International Journal of Aging and Human Development, 12*, 205–213.
- Luoh, M. C., & Herzog, A. R. (2002). Individual consequences of volunteer and paid work in old age: Health and mortality. *Journal of Health and Social Behaviors, 43*, 490–509.
- Luks, A. (1991). *The healing power of doing good: The health and spiritual benefits of helping others*. New York: Fawcett Columbine.
- Magnolia Clubhouse. (2009). *Magnolia club house*. Retrieved October 2, 2009 from www.magnoliacubhouse.org.
- Medalie, J. H., Stange, K. C., Zyzanski, S. J., & Goldbourt, U. (1992). The importance of biopsychosocial factors in the development of duodenal ulcer in a cohort of middle-aged men. *American Journal of Epidemiology, 136*, 1280–1287.
- Moen, P., Dempster-McClain, D., & Williams, R. M. (1989). Social integration and longevity: an event history analysis of women's roles and resilience. *American Sociological Review, 54*, 635–647.
- Musick, M. A., & Wilson, J. (2003). Volunteering and depression: The role of psychological and social resources in different age groups. *Social Science and Medicine, 56*, 259–269.
- Neusner, J., & Chilton, B. (2005). *Altruism in world religions*. Washington, DC: Georgetown University Press.
- New York State. (2006). *Self-help and peer support*. Retrieved September 15, 2009, from www.omh.state.ny.us/omhweb/ebp/adult_selfhelp.htm.
- Pagano, M. E., Friend, K. B., Tonigan, J. S., & Stout, R. L. (2004). Helping other alcoholics in Alcoholics Anonymous and drinking outcomes: Findings from Project MATCH. *Journal of Studies on Alcohol, 65*, 766–773.
- Pagano, M. E., Krentzman, A. R., Onder, C. C., Baryak, J. L., Zywiak, W. H., & Stout, R. L. (2009a). Assessment of service to others in sobriety (SOS). *Alcoholism: Clinical and Experimental Research, 33*(Suppl.), 194A, Abstract No. 733.
- Pagano, M. E., Phillips, K. A., Stout, R. L., Menard, W., & Piliavin J. A. (2007). Impact of helping behaviors on the course of substance-use disorders in individuals with body dysmorphic disorder. *Journal of Studies on Alcohol and Drugs, 68*, 291–295.
- Pagano, M. E., Zemore, S. E., Onder, C. C., & Stout, R. L. (2009b). Predictors of initial AA related helping: Findings from Project MATCH. *Journal of Studies on Drugs and Alcohol, 70*, 117–125.
- Paulas, M. P., Tapert, S. F., & Schulties, G. (2009). The role of interoception and alliesthesia in addiction. *Pharmacology, Biochemistry, and Behavior, 94*, 1–7.

- Piliavin, J. A., & Charng, H. W. (1990). Altruism: A review of recent theory and research. *Annual Review of Sociology*, 16, 27–65.
- Post, S. G. (Ed.). (2007). *Altruism and health: Perspectives from empirical research*. New York, NY: Oxford University Press.
- Riessman, F. (1965). The 'helper' therapy principle. *Social Work*, 10, 27–32.
- Schuckit, M. A., Daeppen, J., Danko, G., Tripp, M. L., Smith, T. L., & Li, T. K. (1999). Clinical implications for four drugs of the DSM-IV distinction between substance dependence with and without a physiological component. *American Journal of Psychiatry*, 156, 41–49.
- Schwartz, C. E., & Sendor, M. (1999). Helping others helps oneself: Response shift effects in peer support. *Social Science & Medicine*, 48, 1563–1575.
- Tomes, N. (1984). *The art of asylum-keeping: Thomas Story Kirkbride and the origins of American psychiatry*. Philadelphia, PA: University of Pennsylvania Press.
- White, W. L. (2000). The history of recovered people as wounded healers: I. From Native America to the rise of the modern alcoholism movement. *Alcoholism Treatment Quarterly*, 18, 1–23.
- Wilson, B. (1988). *Language of the heart: Bill W.'s grapevine writings*. New York: Alcoholics Anonymous World Services.
- Zemore, S. E., & Pagano, M. E. (2008). Kickback from helping others: Health and recovery. In M. Galanter & L. A. Kaskutas (Eds.), *Research on Alcoholics Anonymous and spirituality in addiction recovery* (pp. 141–166). New York, NY: Alcoholics Anonymous World Services.