R. 0149

A Review of Optimal Group Size and Modularisation or Continuous Entry Format for Program Delivery

Lynn Stewart, Ph.D., C.Psych.

Amy Usher

Kim Allenby

Research Branch

Correctional Service of Canada

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Executive Summary

Program mangers and administrators are seeking methods of more efficiently delivering correctional programs while at the same time not compromising program quality or public safety. Two methods of potentially increasing the number of offenders who complete programs that have been proposed is increasing group size and the delivery of programs in a continuous entry or modularised format.

This literature review on group size found that there were very few empirical studies that would provide strong evidence of the optimal group size; however, practitioners from diverse program areas have consistently recommended that group size should not exceed 6-8 participants. Very rarely does a researcher or practitioner recommend a group size above 10 participants.

It is possible that educational or didactic programs may be delivered to larger groups without compromising program quality and effectiveness. With larger groups, administrators should carefully monitor facilitators for the potential of burn out.

Writers recommending the number of participants in a group acknowledge that the optimal size of the group should depend on the goals of the program, the theoretical orientation of the program, the profile of the participants and the requirements of the agency.

Correctional programs are based upon cognitive-behavioural principles and require that participants be actively involved in practicing skills and receiving feedback from facilitators. Large groups make this requirement for practice very difficult.

Correctional programs in CSC address the multiple needs of offenders who have learning and behavioural problems. They come from diverse ethnic and offence backgrounds. Given the challenges of this population, when there is only one facilitator, the group size should not exceed 10 offenders. For very high needs groups, the group size should be smaller than this.

Despite its administrative challenges, the modularised format does provide flexibility and the ability to tailor the program delivery to offender need. Based on interviews and recommendations from program deliverers the following circumstances are those in which the format works best:

- When the group is relatively homogenous, i.e. participants have similar offence histories or similar criminogenic needs. (It should be noted however that the Community Maintenance Program (CMP) is able to integrate offenders from diverse backgrounds into a continuous entry program);
- When the group participants are not high risk or high need;
- When the participants come from a previous program background so that the material is not entirely new to them;
- When the program is offered in the community.

Modularised or continuous entry format may be too difficult to implement for the high risk and high need offenders who take programs at institutional sites. The community sites have had success in the delivery of the Community Maintenance Program which may be because referral criteria require participants to have previously completed a correctional program.

An alternative to offering all of the program in a modularised format is proposed that would involve the delivery of an initial module based on the design of AMIs (Adaptation of Motivational Interviewing) that have been shown to improve the impact of later treatment participation and have been effective in producing long standing change in some problem behaviours as stand alone interventions (Burke, Arkowitz & Menchola, 2003).

iv

R. 0155

Table of Contents

List of Tables

vi

PRINCIPLES OF EFFECTIVE CORRECTIONAL INTERVENTION

The Correctional Service of Canada (CSC) is responsible for providing federally sentenced offenders with correctional programs that will address needs related to their offending and promote their successful reintegration into the community (CSC, 2003). Interventions which adhere to the principles of risk, need and responsivity have been found to be the most effective in reducing recidivism. These three principles stipulate that the intensity of the intervention should correspond to the offenders' level of risk (that is, higher risk offenders receive high intensity programs; lower risk offenders should receive low intensity programs or no interventions), that programs should target criminogenic needs (i.e., those dynamic factors associated with reducing recidivism), and that programs should be delivered in a style and form that is sensitive to the offenders' culture and gender but also their level of skills and abilities (Andrews & Bonta, 2006).

Various program group characteristics comprise a key aspect of responsivity and as such can have an impact on effective delivery. CSC has a mandate to deliver effective programs to all offenders who require them. This can be challenging and as a result, managers and administrators are constantly trying to identify strategies that improve on program effectiveness and also on efficiency. Their goal is to find more efficient ways to deliver correctional programs that will allow more offenders to complete their program requirements while at the same time not compromise the program quality or public safety. Factors such as group size and the continuous or controlled intake of participants (i.e., entry that is flexible and open throughout the course of the program) may affect the response of offenders to the program material. The purpose of the following paper is to briefly review the literature and the input of stakeholders to determine: (1) the optimal group size for correctional programs; and (2) the advantages and disadvantages of delivering programs applying a continuous entry or modularised format. A third strategy to increase program efficiency by delivering correctional programs twice per day has also been proposed. However, no research could be found on this subject so it is not included in the discussion.

1

GROUP SIZE

Offering programs in a group format has the benefits of providing an environment in which individuals can appropriately socialize, learn to listen, communicate and handle conflicts. In addition, a group setting gives participants a place where they can share and learn from each other, practice new skills and work through issues together. Group size is a cost effective method of delivering key services that would otherwise be offered by staff to individual offenders, requiring a much larger facilitator staff complement.

The number of participants in a group can have important potential implications for the effective delivery of group programs. Some of the disadvantages of larger treatment and program groups may include less time per participant to work through problems, less time to practice key skills and receive feedback, a tendency for participants to disengage with the material or become disruptive, and increase the potential of the more withdrawn members to not actively express themselves or engage with the group. Group cohesiveness may be a challenge in very large groups. Several authors stress the relationship between group cohesiveness and group efficacy (Oesterheld, McKenna & Gould, 1987; Hartmann, Herzog & Drinkmann, 1992; Mitchell, 1991; Cox & Merkel, 1989), and conclude that a stable membership is difficult to achieve due to higher drop-out rates in larger groups (Yalom & Leszcz, 2005). In agencies with a large demand for services , however, and a mandate to provide programs to offenders who require them, larger groups can increase program capacity and decrease wait times, bed space, and ultimately, reduce costs to the public.

Within the CSC, policy sets limits on the number of participants who can participate in a program at a given time. This is dependent on the number of facilitators (Correctional Program Officers (CPOs) or psychologists) who are delivering the program. The moderate intensity programs are typically facilitated by one staff member; in this case the maximum number of participants is set at ten, while this is increased to twelve if two staff members are facilitating (CSC, 2008). All the high intensity correctional programs are delivered by two facilitators. It is recognised, however, that this policy may not be suitable for all types of correctional programs and the types of offenders for which these programs are geared towards. For example, the Women's Violence Prevention Program (WVPP) is set to a maximum of six participants throughout the pilot phase, with a potential of being brought to a maximum of eight once this

phase is completed. This lower maximum is set due to the nature of the program's intensity and because of the high risk and high needs profile of the target population (CSC, 2008a). In comparison, the violence prevention program designed for male offenders[1] (VPP) is co-facilitated by a CPO and a mental health staff member and can have a maximum of twelve participants (CSC, 2004). In smaller community sites or in some institutional settings where the variable language profile of offenders or the problem of association with other offenders Security has designated as "incompatibles" make it more difficult to load a program with ten or twelve offenders, it is recognised that programs can be started with fewer offenders. Indeed, the latest version of Reintegration Programs' policy does not set a restriction on the minimum number of offenders required to launch a program although site managers may not want to allocate staff resources to very small groups.

Other correctional agencies similarly recommend limiting group size. For example, the US Department of Justice suggests an optimal group size of twelve, with a maximum of sixteen (Linhorst, 2000) while the British Prison Service and Probation set the upper limit on group size at ten and always employ two facilitators. The John Howard Society recommends that groups range in size from eight to twelve members (2004).

Most of the literature on this topic is restricted to observations on ideal group size for group psychotherapy whereas the correctional programs in CSC are based on cognitive-behavioural principles and their effective delivery requires a lot of skills training and practice. The usual recommendation among practitioners is to aim for groups with five to seven clients (Levine, 1979; Yalom, 1975) but the basis for this limitation has not been made clear and there is very little empirical support for their contentions. Erickson's (1982) review of small group psychotherapy noted that recommendations in the literature regarding group size vary, although clinical tradition has settled on about eight members.

Yalom writes that in his experience, groups of five to ten are acceptable with the ideal being around seven. He considers that groups under five lack some of the benefits from the group's dynamics.

Slavson (1957) defines a group as having to consist of three or more persons; he goes on to state that, within therapy groups, a minimal number of individuals is necessary in order to foster meaningful relationships. Ideally, he states, the size of psychotherapy groups often ranges

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[1] The VPP became an accredited program in June, 2000.

3

between five to ten participants. The lower limit is determined by the number of individuals required in order to function cohesively as a group, while the upper limit is determined by the number of participants that the therapist can effectively work with in the given amount of time (Yalom & Leszcz, 2005).

Fulkerson, Hawkins & Alden (1981) surveyed the literature on small groups and reported that groups with a size of five members are reported to be most satisfying to the members. They propose five as the minimum number of members necessary for the therapeutic group process to develop. Groups with more than five members appear to more easily develop cohesion, group identity (perhaps the most important single factor in therapeutic effectiveness) and to form an interactive group process.

Larger groups restrict the amount of "air time" each member of the group can expect. There is evidence that communication in general is attenuated when groups are larger. Castore's (1962) study of the number of verbal interrelationships in inpatient groups of varying sizes demonstrated sharp drops in verbal interrelations when the group reached nine and seventeen members, concluding that five to eight members is optimal for patient participation. Here again, however, the nature and goals of the group in question determine optimal size.

Bond (1984) examined the role group size had on the degree of norm regulation within the group. Group norms are shared understandings among group members regarding appropriate and inappropriate behaviours. Factors that reflect norm regulation include the extent of the diversity of opinion, compliance on issues related to attendance, participation and confidentiality. These factors are related to the degree of normative conflict in a group. Larger groups, owing simply to their greater numbers, are more likely to have a diversity of opinion that can result in conflict. Bond found that in the case of positive regulation, there was a significant nonlinear relationship with group size. The moderate sized groups (five to six) achieved the greatest positive norm regulation. He speculated that a group with five to six is optimal for the development of positive norm regulation, balancing off the inhibiting factor of the awkwardness of a restricted range of behaviour of a small group and exploiting the dynamics of the group form while keeping conflict among participants manageable by the therapist.

Fettes & Peters (1992) considered the impact of group size for the delivery of programs to address bulimia. They found a positive association between outcome and the number of subjects per group, but that association was not significant. They concluded that group

4

psychotherapy for bulimia can be effective when conducted with high client-to-therapist ratios. They warned, however, that large groups may have a harmful long term effect on service providers by increasing 'burn out', thus reducing efficacy and efficiency in the long term.

Thorn and Kuhajda (2006) suggest that groups for dealing with chronic pain would ideally comprise between five to seven patients. They favour limiting the size to five because they believe it is sufficient to facilitate interaction among group members while providing enough time for each patient to be heard.

In their recommendations for group therapy for depression, Hollon and Shaw (1979) stated that six participants would appear to be the maximum number practical for a single therapist to handle. Other authors support numbers close to this size. Scott and Stradling (1990) examined small group cognitive therapy for depression and compared the results to individual therapy. They found that group therapy was as effective as individual therapy and that treatment gains were still demonstrated after six months. They did not find that increasing the group size from 6 to 8 diminished the effectiveness of the therapy. They calculated that for the average group size of six patients, there was a saving of 42% of therapist time, and for eight patients that figure would be 50%. They concluded that group therapy was more efficient than individual.

In Weis' (2003) review of support groups for cancer patients he noted that the number of members in groups ranges from five to a maximum of twelve members. The optimal group size, he stated, has been shown to be about eight members.

McCaughrin and Price (1992) completed research on the impact of various characteristics of substance abuse treatment programs on outcomes. They reported that smaller groups (lower case loads and smaller patient to staff ratios) was one feature associated with superior treatment outcomes. Similar results were confirmed by Broome, Flynn, Knight, and Simpson (2007) in their large scale study of program characteristics and their impact on program effectiveness. They concluded that larger capacity programs appear to be less productive environments for both clients and staff, as underscored by the lower sense of efficacy ($r = -.26$), professional community ($r = -.14$), and poorer climate ($r = -.08$) that prevails there. This suggests that the barriers to interaction and greater workload may outweigh any potential resource advantage associated with increased size. They advise that the challenge that faces programs is to work toward an optimal size, neither too small nor too large, to balance the benefits of efficiency and social interaction.

5

An evaluation of a national offender substance abuse program (OSAP) in CSC provided a natural experiment with which to look at the impact of group size on offender outcomes. The researchers were able to capitalize on the fact that the OSAP program was administered to 20 consecutive groups of offenders with groups ranging in size from 9 to 20 offenders. Four categories of group size were created: (1) average group size of 12 (range = 9 to 14); (2) average group size of 16 (range = 15 to 17); (3) average group size of 18 (no combining of other group sizes); and (4) average group size of 20 (range = 19 to 20). The re-admission rates for each of the four groupings increased according to the average size of the group. Average group sizes of between 18 and 20 offenders had re-admission rates of 34% and 33%, respectively, compared to a smaller average group size of 12 (re-admission rate of 27%). Although the differences were not statistically significant, the authors claimed that there was a trend indicating that re-admission rate increased with increasing group size (there is however, the possibility that the lower numbers who completed some of the groups included those who remained after the higher risk or less motivated offenders had dropped out, thus distilling those with outcomes that are more likely to be positive). The authors concluded that the findings suggest that an effort to increase the number of participants in a group will impact negatively on post-release success.

Delivering a group correctional program within a correctional setting presents the challenge of adequately delivering program material to a unique population. Ross et al. (2008) suggest that working effectively with a large group of offenders many of whom may have learning problems, language barriers, brain injury, personality disorders and come from very diverse cultural backgrounds may be beyond the scope of any one therapist. The demands of processing a group with so many multiple learning needs has the potential to adversely affect both the program facilitator and the participating offenders. For this reason, Ross, Polaschek & Ward (2008) have suggested that working with ten offenders may be too many for one therapist to effectively handle. In a recent survey of ten experienced program delivery facilitators in CSC, nine out of ten noted that an ideal group number for a group led by one facilitator is fewer than eight. Most believed that a group should be between six to eight members. Most acknowledged that with two facilitators groups could have ten to twelve members.

Group size: Summary

This brief review looked at recommendations for program group size from various sources. These sources and their recommendations are compiled in Appendix A. With few exceptions, reviewers or researchers recommend groups of fewer than ten participants. Although the empirical literature comparing larger with smaller groups is scant, the consensus of opinion across practitioners is impressive. Optimal group size depends on several variables including the type of program delivered, the length of the program, the profile of the clientele, and the demands placed on the facilitator. The effective delivery of correctional programs requires that each participant must be actively involved in role plays, practice skills and receive feedback from the facilitator. The group content touches on very personal material and requires the application of new ways of thinking and behaving in high risk situations. The participants generally represent a population with multiple problems that affect their learning and come from ethically and linguistically diverse backgrounds. It is recommended, therefore, that for the delivery of these program where there are so many challenges faced by facilitators the number of participants in a group with one facilitator should not exceed ten and should be lower for groups with very high needs offenders. For programs that are educational and didactic, that is, those that are purely information-based, group size can probably be larger without having a negative impact on effectiveness.

7

CONTINUOUS INTAKE OR MODULARISED FORMAT PROGRAM DELIVERY

Another correctional program characteristic to be considered is the viability of a modular program format. Sometimes referred to as open group programs, this style of delivery offers flexible entry so that offenders are able to start a program when they are ready without having to wait to start at the beginning when the program comes available. This format could include entry at the beginning of a new module or the most flexible version will allow for entry at any point in the program.

The advantage of running open group interventions that allows for the accommodation of participants as soon as they are available for the program is that it potentially results in shorter and more manageable waitlists. Moreover, continuous intake can facilitate participants learning from each other as the experienced participants can assist newcomers as they enter the program (Marshall & Williams, 2001).

Despite these advantages, closed groups (i.e., those programs which do not have flexible entry and whose participants all start and end the intervention at the same time) also offer some advantages. Program entry is often closed in order to maintain a better sense of cohesion amongst group participants (CSC, n.d.). Many of CSC's programs are designed in such a way that learning the concepts and skills is cumulative, with each session building on the previous one. Programs that have not been designed to allow continuous entry but use the format anyway place a lot of demands on the facilitator to help new participants catch up. This can also irritate the existing group participants who have already reviewed the material and can be stressful for the incoming participant. While both formats bring their benefits, unfortunately, there is not enough substantiated evidence to suggest which format is more appropriate in successfully addressing offender risk, need and responsivity (Marshall & Williams, 2001). In the end, the decision to adopt one format over another will depend on a combination of factors including the profile of the participants, the design of the program and the regime at the site.

One example of a CSC program designed with continuous intake is the Women Offenders' Substance Abuse Program (WOSAP). This program consists of three modules, two of which are delivered as continuous intake. The first is a low intensity module that is open to all women offenders and delivered on a frequent basis so there is no immediate necessity to offer this module with continuous intake (Sherri Doherty, personal correspondence, March 25, 2009).

8

The first cycle of the WVPP was facilitated with continuous intake in order to reduce the length of time women would have to wait for program admission (CSC, 2008a); however, it was found in the first phase of the pilot that adding participants during the program cycle caused disruption, resistance and affected the cohesiveness of the group as the women were not all at the same stages. Overall, it was decided that continuous intake was not beneficial for high risk/high needs women offenders and the program is no longer being offered on a continuous entry basis for the rest of the pilot phase (CSC, 2008b). Similarly, administrative problems were experienced with efforts to launch the Moderate Intensity Violence Prevention (MIVPP) program in a modular format. Consistent with the decisions made by on the Women's Substance Abuse Program, the MIVPP program is now being run only as a closed group program (Yazar, 2008).

Survey of facilitators on modularised program delivery in CSC

Since there is little empirical evidence to commend one format over the other we have designed a brief piece of research that involved interviewing facilitators within CSC who have used both the closed group and open group formats. The description of the survey and the results are presented below.

Method

Ten telephone interviews were conducted with experienced correctional program facilitators. Their responses were coded and later analysed. The questions to be posed were sent to the facilitators prior to the interview to save on interview time. All the facilitators had at least 2 years of experience within CSC and some had over 15 years of program experience (Mean = 8.5 years). All had delivered the standard CSC programs as well as versions of the modularised program format at least twice. All regions were represented although the greatest number of interviews was conducted with facilitators from the Prairie region. Six respondents delivered programs in the institutions and four in the community. The type of programs delivered by respondents that involved a modularised or continuous entry format were: Community Maintenance (4), Violence Prevention Program (2) and Women Offenders' Substance Abuse Program (4).

9

Results

Table 1 presents the frequencies of the main responses provided by the participating facilitators to the question, "What are the advantages of a modularised format?" The most common advantage cited for the modularised format is the reduction in wait times for offenders (N = 9) and increased flexibility to tailor the program to the specific needs of the offender (N = 4).

10

R. 0169

Table 1

Advantages of a Modularised Program Delivery Format

Positive features of a modularised program delivery format	Number agreed (%)
1. Reduces wait times/offender can start program right away	9 (90%)
2. Increased flexibility/can better tailor program to meet the needs of the offender (i.e. do not have to assign the entire program, can focus only on necessary modules)	4 (40%)
3. Having new members join group can have positive effect on group dynamics (roles do not become fixed/reduces impact of negative members)	2 (20%)
4. Existing members can model acceptable rules/expectations/skills for new members	2 (20%)
5. Offender can leave the program after a module and then come back at a later date without having to redo entire program	2 (20%)
6. Allows offenders to retake certain modules if needed, without having to retake entire program	1 (10%)
7. New participants joining group increases learning and motivation for others/ seeing older members graduate and succeed is motivating for new members	1 (10%)
8. Having new members join provides opportunity to practice skills of meeting new people and adapting to new environments	1 (10%)
9. Works well in a multilevel facility, as people are continuously rotating anyway	1 (10%)
10. Report writing is spread out, does not need to be completed all at once	1 (10%)

Table 2 presents the most common problems that facilitators noted with the modularised format. The most frequently cited problems are: Increased workload/report writing (N = 9); Disruptive to group dynamics/group cohesion (N = 8) and Challenge to constantly repeat information and bring new members up to speed when they join (N = 6).

11

Table 2

Disadvantage of a Modularised Program Delivery Format

Issues with delivery of a modularised program delivery format	Number agreed (%)
1. Increase in workload/report writing	9 (90%)
2. Disruptive to group dynamics and cohesion/reduces trusts/reduces level of sharing and participation	8 (80%)
3. Must repeat information every time new member joins/challenge to bring new members up to speed quickly	6 (60%)
4. Modules build on each other and are not self-contained	2 (20%)
5. Harder to accommodate different skill levels/different needs of the group when members constantly change	2 (20%)
6. Building motivation is more challenging	1 (10%)
7. OMS does not accommodate for modular report writing/not able to track modules in OMS	1 (10%)
8. "Sunset clause" (whereby all modules need to be completed within a specified period of time) should be changed. Not always feasible/realistic for offender to complete in timeframe/can lead to higher incompletion rates	1 (10%)
9. Increased risk of burnout for facilitators	1 (10%)
10. Hard to track completions if not on top of referrals	1 (10%)
11. Hard to stop program as new members are constantly joining	1 (10%)
12. Format is confusing for offenders/ hard for them to keep track of where they are in their program	1 (10%)

When asked which format they prefer delivering, 50% of the facilitators said they prefer the standard format; 30% said that both formats had their strengths and 20% preferred the modularised or continuous entry format. Although this was a small sample size there appeared to be clear difference in preference of format based on site. Facilitators working in the institutions

12

preferred the standard closed entry format (67%) while those in the community were ready to deliver either format.

Program format: Summary

Despite its challenges, the modularised format does provide flexibility and the potential to tailor program delivery to individual offender need. Based on interviews and recommendations from facilitators the following circumstances are those in which the format works best:

1. When the group is relatively homogenous, i.e., participants have similar offence histories or criminogenic needs. (It should be noted, however, that the CMP is able to integrate offenders from diverse background into a continuous entry program);

2. When the group participants are *not* high risk or high need;

3. When the participants come from a previous program background so that the material is not entirely new to them;

4. When the program is offered in the community.

Obviously, when all four criteria are met the continuous entry or modularised format has ideal conditions in which to be implemented. Using a modularised program delivery format in the institutions in CSC has proven to be very difficult. Administratively, it is unlikely that an offender who completes one of the modules at one institution and is transferred out can expect to pick up the same program at the right time to complete the next module. Monitoring of compliance on report writing and program completion rates is also difficult. Continuous entry in the institutions poses another set of problems when high risk or high needs offenders react negatively to the constant integration of new participants. It should be noted that there are successful exceptions to this. For example, a continuous entry option (or rolling program) has been offered to sex offenders in the British Prison Service for several years and those practionners find the format manageable. Sex offenders, however, are generally recognised as more motivated and more compliant than offenders with other offence patterns. One alternative to a complete modularised program format is a modified modularisation that could be implemented in an institutional setting. This would involve offenders in an initial generic module common to all program approaches and offence patterns. Such a module would introduce

13

offenders to the group program process, the vocabulary of programs and help them acquire a basic understanding of their offence patterns. Similar brief interventions to build motivation to participate in further programming has been reviewed in the literature and found to improve later program completions (Burke, Arkowitz & Mencola, 2003).

14

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16

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R. 0176

APPENDIX A
GROUP SIZE

Author	Report	Date	Group size recommendation
CSC	Specific guidelines for methadone maintenance treatment. Section F: Substance abuse intervention http://www.csc-scc.gc.ca/text/pblct/methadone/f-eng.shtml	2003	-maximum group size of 10
McKisack,C. & Waller, G.	Factors influencing the outcome of group psychotherapy for bulimia nervosa. International Journal of Eating Disorders, 22(1), 1-13	1996	-group psychotherapy for eating disorders can be effective with large group numbers if conducted in efficient manner -however, large group size may negatively affect attendance rates and group cohesion
Linhorst, D.	Summary of key findings of a process evaluation of the Ozark Correctional Center drug treatment program. U.S. Department of Justice http://www.ncjrs.gov/pdffiles1/nij/grants/181647.pdf	March 8, 2000	-optimal group size 12, maximum 16
John Howard Society	Perspectives on Canadian Drug Policy http://www.nald.ca/library/research/drugs/perspect/volume2/volume2.pdf	2004	-group size should be linked to program intensity, characteristics of participants, and experience of deliverers. -groups size should be no less than 8 and no more than 12
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18

York: Basic Books

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19

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Ross, E.C., Polaschek, D.L.L., & Ward, T	The therapeutic alliance: A theoretical revision for offender rehabilitation. *Aggression and Violent Behavior, 13,* 462-480.	2008	-working effectively with a large group of offenders many of whom may have learning problems, language barriers, brain injury, personality disorders and come from very diverse cultural backgrounds may be beyond the scope of any one therapist.
Scott, M. J., & Stradling, S. G	Group cognitive therapy for depression produces clinically significant change in community-based settings. *Behavioural Psychotherapy*, *18*, 1–19.	1990	-group therapy was as effective as individual and treatment gains were still demonstrated at 6 months. -increasing the group size from 6 to 8 did not diminish the effectiveness of the therapy. -for the average group size of six patients, there was a saving of 42% of therapist time, and for eight patients that figure would be 50%
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Thorn, B. & Kuhajda, M	*Group cognitive therapy for chronic pain;* Journal of Clinical Psychology, 62(11), 1355-1366.	2006	-5 to 7 patients per group

20

Counteracting 'Not in My Backyard': The Positive Effects of Greater Occupancy within Mutual-help Recovery Homes

Leonard A. Jason, **David R. Groh**, **Megan Durocher**, **Josefina Alvarez**, **Darrin M. Aase**, and **Joseph R. Ferrari**
DePaul University

Abstract

Group homes sometimes face significant neighborhood opposition, and municipalities frequently use maximum occupancy laws to close down these homes. This study examined how the number of residents in Oxford House recovery homes impacted residents' outcomes. Larger homes (i.e., 8 or more residents) may reduce the cost per person and offer more opportunities to exchange positive social support, thus, it was predicted that larger Oxford Houses would exhibit improved outcomes compared to smaller homes. Regression analyses using data from 643 residents from 154 U.S. Oxford Houses indicated that larger House size predicted less criminal and aggressive behavior; additionally, length of abstinence was a partial mediator in these relationships. These findings have been used in court cases to argue against closing down larger Oxford Houses. 125 words

Keywords

Oxford Houses; group homes; 'Not in My Backyard'; substance abuse recovery

Group Homes and 'NIMBY'

Since the 1960's, many institutional settings have been replaced with community-based programs for persons with mental illnesses, developmental disabilities, and substance abuse disorders (Michelson & Tepperman, 2003). An example of a community-based, mutual-aid recovery home for individuals dealing with substance abuse problems is Oxford House (OH; Jason, Ferrari, Davis, & Olson, 2006a). Oxford House has grown since 1975 to over 1,200 homes across the U.S., 30 in Canada, and eight in Australia. All homes are single-sex (i.e., men or women-only), and some women Houses allow residents' minor children. Individuals are typically referred to Oxford Houses by treatment facilities or through word of mouth, and new residents are admitted based on an 80% House vote. Regarding the operation and maintenance of Oxford Houses, no professional staff is involved, enabling residents to create their own rules for communal governance (Oxford House, 2002). Residents are held accountable to abstain from substance use or disruptive behavior; find and maintain a job; complete chores; and pay for rent, food, and utilities. Failure to comply with these rules along with any disruptive/criminal behavior or substance use is grounds for expulsion, and all rules are enforced by the house residents; as long as rules are followed, residents are allowed to stay indefinitely. In addition, residents are required to hold house positions (e.g., president or treasurer) elected for six-month intervals by 80% majority vote. A randomized study found that at two-year follow up, the Oxford House participants had lower substance use (31% vs. 65%, respectively), higher monthly income ($989 vs. $440), and lower

Address correspondence to the first author Leonard A. Jason at the Center for Community Research, 990 W. Fullerton Ave. Suite 3100, DePaul University, Chicago, IL, USA, 60614. Phone: 773-325-2018. Fax: 773-325-4923. ljason@depaul.edu.

incarceration rates (3% vs. 9%) compared to usual-aftercare participants (Jason, Olson, Ferrari, & Lo Sasso, 2006b).

There are numerous theoretical reasons why group homes such as Oxford Houses should be located in residential areas (Seymour, no date). For example, group homes in residential communities may allow for community integration, an active ingredient in the treatment of substance abuse and many other disorders. Group homes might also serve to educate the community about stigmatized populations (e.g., people with substance abuse problems, developmental disabilities, or mental illnesses). Finally, group homes can be a deterrent to crime because residents are generally required to maintain positive behaviors (e.g., sobriety) and are often vigilant. The Oxford House national organization dictates that new Houses be established in safe, low crime, economically stable neighborhoods with minimal opportunities for relapse (Oxford House, 2002). Regardless of geographic location, Oxford Houses are typically situated in low-drug, low-crime communities in which residents have access to resources and amenities that enable autonomy and substance-free lifestyles (Ferrari, Jason, Blake, Davis, & Olson; 2006a; Ferrari, Groh, Jason, & Olson, 2007).

Nonetheless, group homes in residential areas sometimes face significant opposition (Zippay, 1997), with neighbors' concerns relating to property values, traffic, noise, inappropriate behavior (Cook, 1997), and safety (Schwartz & Rabinovitz, 2001; Solomon & Davis, 1984). This phenomenon is commonly referred to as the 'Not in My Backyard' syndrome (NIMBY; e.g., Dear, 1992; Kim, 2000; Low, 1993). Oxford Houses are certainly not immune to NIMBY; for instance, a North Carolina Oxford House was protested and vandalized by neighbors before it opened. In addition to neighborhood opposition, municipalities employ several techniques to legally regulate, restrict, or even close down group homes (Gathe, 1997). To start out with, cities sometimes decline to provide the required license to prevent the opening of a recovery home. Other regulatory tactics involve density limitations, which may include the Fair Housing Act and Landlord-Tenant Laws (e.g., group homes cannot remove substance-using or disruptive residents without a court order), prohibiting more than one recovery home within a certain radius, and maximum occupancy rules, the focus of the current investigation (i.e., too many unrelated people living in the same dwelling).

Despite the resistance faced by these homes, group homes actually have very little impact on their surrounding neighborhoods and generally blend into the community (Cook, 1997). Community members frequently expect to have more problems with group homes than really occur (Cook; McConkey et al., 1993), and residential facilities do not tend to negatively affect public safety (Center for Community Corrections, 2002). In fact, contrary to popular fears, literature reviews suggest that these settings may actually increase property values in their neighborhoods (Aamodt & Chiglinksy, 1989; Center for Community Corrections). Similar patterns have been demonstrated for Oxford House recovery homes. Local communities reported Oxford House residents blended well into the neighborhood and made good neighbors (Jason, Roberts, & Olson, 2005). The majority of Oxford House neighbors interviewed had either gained resources, friendships, or a greater sense of security following contact with the Oxford House residents. Furthermore, no evidence of property devaluation was found for neighborhoods containing Oxford Houses; community members who knew of the Oxford House actually saw an increase in property value over an average of 3 years.

Several studies investigated factors that influence the reception of group homes in residential areas. The Center for Community Corrections (2002) interviewed community members and found that neighbor acceptance of community justice facilities and halfway homes was enhanced by an engaged public, a well-run program with access to substance

abuse treatment and job development, community input and continuing involvement, discernible contributions to the community, and a careful assessment of the community prior to entry. Additionally, the more a facility resembles the neighborhood in which it resides and the more autonomous the facility residents, the more likely residents will integrate into the community (Makas, 1993). Further, research indicates that closer proximity (Gale, Ng, & Rosenblood, 1988) and increased contact (Butterfield, 1983) between community members and group home residents has a positive effect on the reception of the homes. Jason and colleagues (2005) revealed that residents who lived adjacent to an Oxford House, as opposed to a block away, had significantly more positive attitudes towards the need to provide a supportive community environment for those in recovery, allow substance abusers in a residential community, and the willingness to have a self-run home on their block.

In attempt to reduce the amount and level of concern related to Oxford Houses and other group homes, educational efforts might be developed such as documenting the effects of group homes on property values, having facility residents maintain friendly rapport with neighbors, and residents becoming more familiar with their surroundings in order to address neighbors' fears (Cook, 1997). For example, staff at a residential facility implemented educational measures to inform the neighborhood about the opening of the home (Schwartz & Rabinovitz, 2001). Significant interactions were found between neighbors visiting these facilities and decreases in dissatisfaction. Finally, it has been suggested that researchers should focus on developing ways that the public can become more familiar with halfway houses and other group homes (Center for Community Corrections, 2002).

Group Home Size

In order to implement educational efforts, this research study focused on one NIMBY threat to group homes: house size. While very little research exists on this topic, one study (Segal & Darwin, 1996) found that within sheltered care facilities for individuals with mental illness, although home size did not relate to levels of management, larger homes were less restrictive in their rules and procedures. Larger homes also spent more on program activities for their residents, and their residents were more involved in facility-based activities. It is possible that these greater occupancy facilities were able to provide more of an opportunity for residents to develop a sense of community. However, this type of sheltered care facility is fairly different from Oxford House recovery homes.

It is suggested that a sufficient number of residents in each home might be a necessary component in the effectiveness of Oxford House through the mechanism of social support. Individuals recovering from addictions should be surrounded by a community in which they feel they belong and are able to obtain sobriety goals (Jason & Kobayashi, 1995). Oxford House residents rated "fellowship with similar peers" the most important aspect of living in an Oxford House (Jason, Ferrari, Dvorchak, Groessl, & Malloy, 1997). The Oxford House experience also provides residents with abstinent-specific social support networks consisting of other residents in recovery (Flynn, Alvarez, Jason, Olson, Ferrari, & Davis, 2006). Individuals who spent more time in an Oxford House had a greater sense of community with others in recovery, less support for substance use (Davis & Jason, 2005), and more support for abstinence (Majer, Jason, Ferrari, Venable, & Olson, 2002). Oxford Houses with more residents might have greater opportunities for members to provide and receive these vital social resources. It is believed that larger Houses will promote recovery through their ability to promote larger (Zywiak, Longabaugh, & Wirtz, 2002), more supportive social networks (MacDonald, 1987) that include sober others in recovery (Hawkins & Fraser, 1987; Zywiak et al.), constructs linked to sober living.

In addition to increased levels of social support, there are other hypothesized benefits to larger Oxford Houses. For instance, rent may be lower in larger homes because residents can

split the costs. Additionally, having more residents allows members to learn from each other and increases opportunities for diversity. In this study, we examined the effects of House size on criminal and aggressive behaviors among Oxford House residents, two areas of significant concern to communities containing group homes (Cook; Schwartz & Rabinovitz, 2001; Solomon & Davis, 1984). Oxford House has been found to promote positive outcomes regarding both criminal activity (Jason et al., 2006b; Jason, Davis, Ferrari, & Anderson, 2007a; Jason, Olson, Ferrari, Majer, Alvarez, & Stout, 2007b) and self-regulation (Jason et al., 2007b), which relates to aggression. Therefore, it was hypothesized in the present study that residents of larger Houses (with 8 or more members) would exhibit fewer criminal and aggressive behaviors as measured by the *Global Appraisal of Individual Needs-Quick Screen* than residents of smaller Houses.

Method

Procedure

Data included in the present study were from the baseline data collection (completed between December 2001 and April 2002) of a community evaluation of residents living in one of 213 U.S. Oxford Houses (see Jason et al., 2007a for details). Participants from this Institutional Review Board-approved study were recruited and surveyed using two strategies. The majority of participants (*n* = 797) were recruited through an announcement published in the monthly Oxford House newsletter that provided contact information for the study. We then contacted Oxford Houses via letters to House Presidents, conducted follow-up phone calls to the Houses, and where possible, members of the research team arranged to visit Houses. Of the 189 Oxford Houses that were approached, 169 (89.4%) had at least one individual who agreed to participate in the study, and the average number of individuals per House choosing to participate in the study was 4.7. For the second method, 100 individuals were randomly selected to fill out the baseline questionnaires at an annual Oxford House Convention attended by 300. Analyses revealed no difference in demographic or outcome variables between the two recruitment groups.

In each case, the nature, purpose, and goals of the study were explained to the potential participants. As part of the consent process, staff members explained that participation was entirely voluntary and that withdrawal from the study was possible at any time. Fifteen dollar payments were made to participants following the survey. These data were gathered by research staff who primarily administered questionnaires in person to the participants. Some data were collected by telephone, which was often the case for those who had left Oxford House. No significant differences were found based on data collection method.

In addition, an environmental survey (assessing House size) was mailed to the House Presidents of all 213 Oxford Houses. No identifiable information about any House resident was requested, and confidentially was maintained for all data. Most often the survey was completed by the House President (60.2%) or another House officer (31.6%), such as the Secretary or Treasurer. The survey then was returned by mail, and a small package of coffee was subsequently sent to the House for participation. Pilot testing indicated that it would take less than 20 minutes to complete and mail the survey, which were collected over a four month period.

Participants

For this investigation, we only included participants from the 154 Houses for which we had data on House size, representing 72.3% of Houses in the larger study. On average, Houses had about 7 total members (*M* = 7.1, *SD* = 2.0, *Median* = 7), and Houses in this study ranged in size from 3–18 residents. Regarding geographic region within the U.S., 27.7% of Houses

were located in the West, 18.4% were in the Midwest and Texas, 28.3% were in the Northeast, and 25.7% were in the Southeast.

This present baseline sample consisted of 643 Oxford House residents, including 227 females (35.3%) and 416 males (64.7%). The sample was ethnically diverse, with 62.5% European American, 29.2% African American, 3.9% Hispanic/Latino, and 4.4% others. At baseline, the average age of the sample was 38.3 (*SD* = 9.2), and the average education level was 12.7 years (*SD* = 2.0). Regarding marital status, 50.4% were single or never married, 45.4% were divorced/widowed/separated, and 4.2% were married. With respect to employment, 67.4% reported being employed full-time, 14.2% part-time, 13.3% unemployed, and 5.1% retired or disabled, and the average monthly income of the sample was $965 (*SD* = 840). The average participant had stayed in an Oxford House for 1.0 years (*SD* = 1.4). The mean length of sobriety was 1.7 years (*SD* = 2.4) for alcohol and 1.9 years (*SD* = 3.2) for illicit drugs. Regarding recent substance use, participants on average consumed alcohol on 2.3 days (*SD* = 9.1) and drugs on 5.1 days (*SD* = 18.3) in the past 90 days. Concerning legal status, 30% of participants were currently on probation, and 14% claimed that their entry into OH was prompted by the law. Regarding lifetime data, the average participant was charged with a crime 9.9 times (*SD* = 14.0) and were incarcerated a total of 15.9 months (*SD*= 36.8).

Measures

Baseline demographic information (e.g., gender, race, substance disorder typology) was obtained from items on the 5th Edition of the *Addiction Severity Index-lite* (*AS*I; McLellan et al.*,* 1992). The *ASI* assesses common problems related to substance abuse: medical status, drug use, alcohol use, illegal activity, family relations, and psychiatric condition. The *ASI* has been used in a number of alcohol and drug use studies over the past 15 years and has been shown to have excellent predictive and concurrent validity (McLellan et al.).

The *Form-90* (Miller & Del Boca, 1994) was administered to obtain a continuous record of alcohol and drug consumption and intensity within a 90-day time span. This measure gathers information related to employment, health care utilization, incarceration, and alcohol and other drug use over a 90-day retrospective (which provides a reliable time frame for abstinence assessment; Miller & Del Boca).

The number of residents per Oxford House was determined using a brief version of a reliable environmental audit developed and utilized by Ferrari and colleagues (Ferrari et al., 2006a; Ferrari, Jason, Davis, Olson, & Alvarez, 2004; Ferrari, Jason, Sasser, Davis, & Olson, 2006b) for use with group recovery settings. This survey requested responses to forced choice and frequency items in a number of domains, including information about the House setting such as the percentage of residents in recovery from alcohol, drugs, and poly-substances, along with the number of inhabitants within a House. Other sections of this audit gathered information on the interior and immediate exterior House characteristics, amenities found within a 2-block radius of the House, and characteristics of the surrounding neighborhood.

The *Global Appraisal of Individual Needs-Quick Screen* (*GAIN-QS;* Dennis & Titus, 2000) is a self-report, clinical screening tool examining whether or not a psychological or substance abuse symptom has occurred in the past 12 months similar to the DMV-IV Axis I criteria. While the *GAIN-QS* is not a diagnostic tool, it has been utilized within clinical screening contexts to identify problem areas and psychological symptoms that warrant further explanation. For the purposes of this study, 2 indices from the *GAIN-QS* were used as the outcome variables measuring aggressive and criminal behaviors: *Conduct Disorder/*

Aggression Index (6 items; *Cronbach's alpha* = .78, *Mean Score* = 1.34) and *General Crime Index* (4 items; *Cronbach's alpha* = .69; *Mean Score* = .29).

Results

House Size and GAIN-QS Subscores

The average House size in this study was about 7 members (*M* = 7.1, *median* = 7), and because a pending court case attempted to make it illegal for Oxford Houses to house 8 or more residents, we decided to compare 7 or fewer members in a House (i.e., smaller Houses) with 8 or more residents of an Oxford House (i.e., larger Houses). *Regression analyses*[1] determined that this dichotomized House size variable significantly predicted the *GAIN-QS* subscales of *Conduct Disorder/Aggression*, β = −.10, *t*(632) = −2.52, *p* = .01, and *General Crime Index*, β = −.10, *t*(634) = −2.44, *p* = .02. House size accounted for 0.8% of the variance in *General Crime Index* scores and 1.9% of the variance in *Conduct Disorder/ Aggression* scores. Larger Houses had fewer problems related to conduct disorder/ aggression, and criminal activity. Smaller Houses had a *General Crime Index* mean score of 0.34 and a *Conduct Disorder/Aggression Index* mean score of 1.43, whereas the respective scores for larger Houses were 0.21 and 1.16 (lower scores indicate fewer problem symptoms in each area).

House Size and Demographic Analyses

Next, *one-way ANOVA* and *chi-square* analyses were run to determine whether large and small Houses (7 or less vs. 8 or more) differed on demographic variables. Results indicated that the groups only differed on one key demographic variable: larger House residents had been abstinent from drugs and alcohol longer than individual from smaller Houses, *F*(1,637) = 4.42, *p* = .04. Residents in smaller Houses had 298.1 (*SD* = 458.6) cumulative days of abstinence on average, compared to 379.5 (*SD* = 476.5) days for residents of larger Houses. This indicates that individual living in larger Houses maintained abstinence for about 81 days longer. Since larger Houses had significantly longer lengths of cumulative abstinence, we ran correlations to determine if this variable also related to the *GAIN-QS* subscale scores. Among participants for whom we have House size data, cumulative days sober did significantly and negatively correlate with the *GAIN-QS* subscales of *Conduct Disorder/ Aggression,* *r*(633) = −.26, *p* = .000, and *General Crime Index,* *r*(631) = −.30, *p* = .000.

Mediational Analyses

We next examined whether the variables in the House size and *GAIN-QS* subscore regression analyses were only significant because individuals in larger Houses had been sober for longer periods of time. In order to evaluate this possibility, we utilized Baron & Kenny's (1986) framework for testing of mediation. In Baron & Kenny's model, the influence of variable A (the initial variable) on variable B (the outcome) may be explained by a third variable known as variable C (the process variable). Complete mediation occurs when variable A no longer affects B after C has been controlled. Partial mediation occurs when the path from variables A to B (the total effect) is diminished in total size but still different from zero after the mediating variable is controlled. The mediational model is a causal one; therefore, the mediator is presumed to bring about the outcome and not vice versa.

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[1]Although participants were nested within Oxford Houses, we decided not to focus on Hierarchical Linear Modeling results because we wanted to test for mediation, which can be done using regression but not HLM. However, we did run HLM analyses and found that House size (as a level 2 group variable) significantly predicted individually-assessed level 1 *General Crime Index* scores (*t*[144] = −2.18, *p* = .03) but not level 1 *Conduct Disorder/Aggression* scores (*t*[144] = −1.17, *p* = .25).

We used Baron & Kenney's (1986) framework to determine whether cumulative days sober mediated the relationship between House size and *Conduct Disorder/Aggression* (A = House size [7 or less vs. 8 or more], B = cumulative days sober, and C = *Conduct Disorder/Aggression*). As demonstrated earlier with linear regression analyses, House size significantly predicted *Conduct Disorder/Aggression*. House size also significantly predicted cumulative days sober (A→B; $\beta = .08$, $t[637] = 2.10$, $p = .04$; $r^2 = .007$), and cumulative days sober predicted *Conduct Disorder/Aggression* (B→C; $\beta = -.30$, $t[630] = -7.86$, $p = .000$; $r^2 = .089$). Finally, when both House size and cumulative days sober were put in the model predicting *Conduct Disorder/Aggression* (A and B→C), House size maintained significance, but less than earlier (House size: $\beta = -.08$, $t[628] = -2.11$, $p = .04$; cumulative days sober: $\beta = -.29$, $t[628] = -7.69$, $p = .000$; $r^2 = .096$). Therefore, House size is related to *Conduct Disorder/Aggression*, and cumulative abstinence is a partial mediator in this association. These two variables (i.e., House size and cumulative abstinence) explained almost 10% of the variance in *Conduct Disorder/Aggression* scores.

We again employed Baron & Kenney's (1986) framework to determine whether cumulative days sober mediated the relation between House size and *General Crime Index* (A = House size [7 or less vs. 8 or more], B = cumulative days sober, and C = *General Crime Index*). As reported earlier, House Size was a significant predictor of *General Crime Index,* and House Size significantly predicted cumulative days sober. Regarding new analyses, cumulative days sober predicted *General Crime Index* (B→C; $\beta = -.26$, $t[631] = -6.77$, $p = .000$; $r^2 = .068$). Finally, with both House size and cumulative days sober as predictors of *General Crime Index* (A and B→C), House size retained significance but less so than before (House Size: $\beta = -.08$, $t[630] = -2.04$, $p = .04$; cumulative days sober: $\beta = -.25$, $t[630] = -6.60$, $p = .000$; $r^2 = .074$). Thus, House size is related to *General Crime Index* scores, and cumulative sobriety is a partial mediator in this relationship. These two variables (i.e., House size and cumulative abstinence) explained more than 7% of the variance in *General Crime Index* scores.

Discussion

The objective of the present investigation was to examine how the number of residents in an Oxford House impacted outcomes related to aggression and crime among residents. Regression analyses supported our hypotheses that larger House size (i.e., 8 or more residents) would predict less criminal and aggressive behavior. However, an unexpected result was that length of abstinence was a significant mediator in these relationships. House size lost a fair amount of significance when the mediator of cumulative days sober was entered into the models predicting *GAIN* subscale scores, and the addition of cumulative sobriety to the models greatly increased the amount of variance explained. Cumulative sobriety partially explained the relationships between House size and *General Crime Index* and House size and *Conduct Disorder/Aggression*. Thus, greater House size leads to greater cumulative abstinence, which in turn leads to less criminal activity and aggression; however, House size does have some independent impact of its own on these outcomes. It is clear that having more residents in a House is beneficial to residents' recovery from alcohol and drug abuse.

These findings have important policy implications regarding the future of recovery homes. It is argued that local governments allow Oxford Houses immunity from maximum occupancy regulations due to the great need in many communities for these settings. It is very difficult for individuals lacking stable living environments to maintain a sober lifestyle following residential treatment (Milby, Schumacher, Wallace, Feedman, & Vuchinich, 1996). As the cost of housing continues to rise, many individuals leaving inpatient facilities are unable to find affordable housing. Without Oxford House or other recovery home options, former

addicts frequently have no choice but to return to their old negative environments and fall back into their pre-treatment habits, which frequently include antisocial activities such as substance use and criminal activity. Regardless of how successful a client has been in treatment, this progress can be reversed through residence in an environment that promotes crime and drug use (Polcin, Galloway, Taylor & Benowitz-Fredericks, 2004). As demonstrated in this study, a sufficient number of House residents is a factor in the ability of Oxford House to promote these outcomes that benefit local communities.

Furthermore, it is suggested that maximum occupancy regulations that apply to recovery homes are often based on false beliefs and fears. Neighbors often oppose recovery homes because they fear increased crime and violence (Cook, 1997; Schwartz & Rabinovitz, 2001; Solomon & Davis, 1984; Zippay, 1997), and in order to appease these residents, cities frequently use maximum occupancy laws to close the group homes (Gathe, 1997). This pattern is quite ironic given that the Houses being closed (i.e., larger homes) should actually give neighbors less reason for concern. It seems obvious that laws based on these misconceptions should be eliminated. Overall, Oxford Houses have positive (not negative) effects on local communities (Jason et al., 2005), and residents of larger Houses appear to be highly desirable community members (i.e., who engage in less criminal and aggressive behaviors).

This investigation provides one more step in the movement to improve the reception of Oxford Houses and other group homes in local communities. While second-order change alters the systems that cause the problems (Dalton, Elias, & Wanderman, 2001), 'Not in My Backyard' typically serves to inhibit this type of change. Changing the attitudes of mental health professionals, community members, and policy makers may break down the barriers to second-order change (Olson et al., 2002). Educational efforts along with successes in the court room may promote a more positive social climate and set legal precedents. Finally, researchers have argued that social scientists should explore ways that the public can become more familiar with residential facilities (Center for Community Corrections, 2002). We hope that these efforts and the efforts of other researchers, individuals in recovery, treatment providers, lawyers, and political activists are successful in reducing the opposition to group homes in residential areas.

Concerning limitations, our findings might not apply to other group homes or residential facilities, which can vary greatly in focus, procedures, setting, and size. For instance, a "large" Oxford House setting (i.e., greater than 7 members) might be very small in comparison to other residential settings, which may accommodate several dozen residents. It is actually possible in these cases that somewhat smaller settings are more effective. In addition, we were typically not able to collect data from all members within a House; thus, some Houses have more representation than others in this sample. Future studies in this area should acquire information from all members of a House if possible. Furthermore, data analyzed in this study were self-report; therefore, it may have been useful to obtain House size estimates using data from other sources such as Oxford House Inc., the national body that oversees Oxford Houses. Also, alcohol and drug use had little variability within this sample because all participants were recruited from Oxford Houses instead of treatment or detoxification centers (suggesting a later stage in recovery), and because residents caught using can be evicted. Perhaps future research assessing occupancy levels of recovery homes should consider a sample with more variability with regards to substance use. A final limitation is our use of regression analyses as opposed to Hierarchical Linear Modeling due to the tested nature of the data; however, we wanted to test the mediational model, which can be done using regression but not HLM. Nonetheless, future researchers assessing group home size may want to seriously consider the use of HLM.

In order to improve the reception of Oxford Houses in local communities and counteract the NIMBY syndrome, the Oxford House Research Team has provided expert testimony in court cases, sent information to legislators, disseminated research findings with policy implications, collaborated with community partners and state-level agencies, and worked with the media to change the image of recovery homes (see Jason, Davis, Ferrari, & Bishop, 2001). In particular, the DePaul University research team has been involved in several court cases over past several years on the behalf of Oxford Houses. Most recently, municipalities located in Kansas, Iowa, and North Carolina have attempted to close down Oxford Houses or similar recovery homes due to too many unrelated individuals living in one dwelling. Findings from the present study were used in these court cases, and at the present time, the Oxford House organization has won every court case.

Acknowledgments

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Interaction of Motivation and Social Support on Abstinence among Recovery Home Residents

Rachael A. Korcha, M.A., **Douglas L. Polcin, Ed.D.**[*], and **Jason C. Bond, Ph.D.**

Public Health Institute, Alcohol Research Group, 6475 Christie Ave. #400, Emeryville, CA 94608

Abstract

Background and Aims—The impetus to abstain from alcohol and drugs is especially robust when individuals seek help. However, motivation to continue abstinence during ongoing recovery is less understood. The present study assessed how social support interacted with motivation to affect abstinence over an 18-monthe time period.

Methods—A sample of 289 residents entering residential recovery homes were recruited and followed at 6-, 12-, and 18-months. Motivation was measured as the perceived costs and benefits of abstinence. Five social influence measures were used to assess interactive effects with costs and benefits on abstinence.

Results—Perceived costs and benefits of abstinence were robust predictors of abstinence over the 18 month assessment period. Two social support factors interacted with perceived benefits to influence abstinence: 12-step involvement and number of persons in the social network.

Conclusion—Suggestions are made for recovery services to influence perceived costs, benefits, and social network characteristics.

Keywords

Motivation; Social Influences; Social Support; Sober Living House; Recovery Home

Introduction

Few concepts in the addiction literature have received more attention than motivation for change. One view of motivation is that is an intrapersonal trait, something within the individual (Miller, 2006). However, research suggests that motivation to change substance use behaviours can be altered by the social context in which it occurs (Miller, 1999; Miller et al., 1995; Moos, 2008). Anecdotally, practitioners in the substance misuse treatment field have long acknowledged that the most motivated clients are also the most successful. Research has generally supported this contention, as studies on motivation for change have been associated with improved alcohol and drug use outcomes (Adamson, Sellman, & Frampton, 2009; McKay & Weiss, 2001). However, much of the literature on motivation has centered on a single measurement of motivation rather than a multidimensional construct.

[*]corresponding author. 510-597-3440, DLPOLCIN@AOL.com.

Motivation has typically been assessed at treatment entry to predict later outcome (Korcha, Polcin, Bond, Lapp, & Galloway, 2011). Less emphasis has been devoted to assessing change in motivation over time or how motivation may function to maintain long term abstinence. However, one study of motivation as a longitudinal and multidimensional construct showed better drug and alcohol outcomes over 18 months were predicted by higher perceived benefits of sobriety, while increased costs, or negative aspects of sobriety (e.g., boredom, social anxiety, and stress),were predictive of worse outcomes (Korcha, et al., 2011).Similarly, Heather and McCambridge (Heather & McCambridge, 2013) found support for improved drinking outcomes based on level of motivation after clients completed treatment.

A strong body of work indicates that the characteristics of one's social network impacts substance use (Galea, Nandi, & Vlahov, 2004; Kaskutas, Humphreys, & Bond, 2001; Longabaugh, Wirtz, Zweben, & Stout, 1998). Several theories have been proposed to understand the influence of social networks, including Hirschi'ssocial control of behaviour (Hirschi, 1969). Social control refers to the strong bonds with family, friends, and other interpersonal relationships that promote drug use prosocial behaviour and discourage deviant behaviour. Addiction research has traditionally examined social control as the amount of support given toward inhibiting or abstaining from alcohol and (Beattie & Longabaugh, 1999; Longabaugh, Beattie, Noel, Stout, & Malloy, 1993; Longabaugh, Wirtz, Zywiak, & O'Malley, 2010; Miller, 2006). Support from the social network that is drug and alcohol specific is more predictive of treatment outcomes than general support (Groh, Jason, Davis, Olson, & Ferrari, 2007; Polcin, Korcha, Bond & Galloway, 2010) and a social network that is supportive of recovery efforts is related to better treatment outcomes (Beattie & Longabaugh, 1999; Subbaraman & Kaskutas, 2012).

Recent studies have considered the mediational role of motivation to understand how motivation operates in the wider scope of the recovery process (Hunter-Reel, McCrady, & Hildebrandt, 2009; Hunter-Reel, McCrady, Hildebrandt, & Epstein, 2010; Small, Ounpraseuth, Curran, & Booth, 2012). Hunter-Reel and colleagues (Hunter-Reel, et al., 2009), proposed that social network members may provide motivation to resist drinking and motivation may change as a function of these relationships. This theory was supported in a later study (Hunter-Reel, et al., 2010) that demonstrated motivation as a mediator between social support and drinking outcomes for alcohol dependent women.

Purpose

The present work examined a variety of social network factors that might interact with motivation to influence abstinence over time. Our goal was to identify ways social support might buffer the destructive effects of low motivation and identify groups for whom motivation might be particularly important. This work contributes to the literature in two important ways. First, most studies on motivation and substance use outcomes have used treatment seeking populations. Motivation to abstain from alcohol and drugs for those with some recovery time has largely been ignored. Of central interest to the present study was examining factors that influence motivation to *maintain abstinence* from alcohol and drugs rather than the motivation to stop or decrease substance use. A second goal was to expand on

the operationalization of the social network to include different types of social influences. We included traditional characteristics of the social network (e.g., number of persons in the network and number of alcohol and drug users in the network) but also other forms of social influences that may impact motivation and alcohol and drug abstinence. The concept of confrontation (Polcin, 2003;Polcin, Galloway, Bond, Korcha, & Greenfield, 2009,2010) as a measure of supportiveness is a relatively recent development in the addiction literature that updates the notion of confrontation as it is perceived by the recipient. The concept of confrontation as helpful takes on a broader perspective that specifically queries those in recovery on the comments or warnings they may have received about their drug and alcohol use from multiple sources (e.g., "bad things" may happen if they do not change their substance use or, if in recovery, make changes to maintain abstinence). Previous work has found this construct or confrontation to be generally experienced as accurate, helpful and supportive by the recipient (Polcin, et al., 2009).

Additionally, this work included affiliation with 12-step programs such as Alcoholics Anonymous (AA) (Humphreys, Kaskutas, & Weisner, 1998) as another component of social influence that might moderate the effect of motivation on outcome. We hypothesized that the relationship between motivation and abstinence would be strongest when there were high levels of alcohol and drug abstinence in the social network, more supportive confrontation, and greater affiliation with 12-step groups. However, we also wanted to explore whether these social influences night buffer destructive influences when motivation remained low over time.

Methods

Sample

Participants were recruited within the first week of entry into residential recovery homes in Northern California. Three programs were targeted. All three used a social model approach to recovery that emphasized 12-step involvement, peer support, and residence in an alcohol and drug-free living environment. However, there were some differences between the sites. The largest (n=218) consisted of 16 houses and required at least a few days of sobriety and no signs of withdrawal from substances prior to entry into the residence. Although these freestanding houses were not affiliated with any type of treatment program, nearly half of the residents reported receipt of residential or outpatient treatment in the 30 days prior to entering the house (n=106). The second location consisted of 51 residents that entered SLHs that were affiliated with an outpatient treatment program. Typically, these individuals needed to be in good standing in the outpatient program for 30 day before applying to the sober living residence. The third site was smaller site (N=20) and offered some on-site treatment services in a residential setting for a period of 30 to 60 days followed by residence in sober living homes. All study materials and protocols were approved by the Public Health Institute's internal review board (IRB).

To maximize generalization of study findings, few exclusionary criteria were implemented and refusal to participate in the study was rare. Eligibility required all participants to be at least 18 years old, have the ability to understand and read English, report no major psychiatric impairments that would interfere with their ability to provide informed consent,

and be available for follow-up interviews. A total of 323 residents were recruited from three locales. All residents were interviewed at baseline and follow-up interviews were conducted at 6, 12 and 18 months. A total of 289 residents (90%) were interviewed for at least one follow-up interview. Because the current paper targets assessment of longitudinal changes over time, residents who did not complete a follow up interview were excluded from the analysis. The sample selected was favourable for the current study because we saw significant increases in alcohol and drug abstinence over time (Polcin, et al., 2010). We could therefore assess how interactions between motivation and social support were associated with improved rates of abstinence.

Measures

Demographic characteristics—In addition to the usual demographic indicators such as gender, race, marital status, education, psychiatric symptoms, and alcohol and drug use measures, SLH information on the length of stay (LOS) and number of days living in a controlled environments in the 30 days prior to house entry are included.

Psychiatric symptoms—To assess current psychiatric severity we used the Brief Symptom Inventory (Derogatis & Melisaratos, 1983). The 53-item measure assesses severity of psychiatric symptoms on nine clinical scales as well as a Global Severity Index (GSI). Items are rated on a 5-point scale and ask about symptoms over the past 7 days. The GSI was used to assess overall psychiatric severity.

Alcohol and Drug Consequences Questionnaire (ADCQ)—The ADCQ (Cunningham, Sobell, Gavin, Sobell, & Breslin, 1997) draws upon a view of motivation that emphasizes the 'pros' and 'cons'of behaviour (e.g., Janis, 1977).The ADCQ uses the terms "perceived costs" and "perceived benefits" to describe two subscales. Perceived costs consists of 15 items and the perceived benefits subscale was inclusive of 14 items. Examples of costs include items such as "I will have difficulty relaxing," "I will get depressed," and "I will feel bored." Examples of benefits include items such as "I will have a better relationship with my family," "I will feel better about myself"and"Iwillbemoreactiveandalert."Because this instrument was administered several times over the course of the study and included persons with no recent substance use, participants were asked to consider their substance use prior to administration of ADCQ items and pick one of two options; (1) "if I keep my sobriety" or (2) "if I stop or cut down." Responses are measured on a 6-point Likert scale ranging from zero to five assessing level of importance for each cost and benefit item. Two scales were created by summing scores and dividing by the number of items. Alphas for our modification of these scales (i.e., assessing motivation to "keep my sobriety" as a response option) were 0.88 for costs and 0.84 for benefits (Polcin, Korcha& Bond, 2015).

Alcohol and Drug Confrontation Scale (ADCS)—The ADCS used 8 items to assess experiences of supportive confrontation from 9sources: spouse, family, friends SLH residents, health care professionals, mental health professionals, substance use treatment professionals, co-workers, and criminal justice professionals (Polcin, et al., 2009). Assessment of each source section begins with the question, "Did (source) say bad things might happen to you if you did not make changes to address drug or alcohol problems or if

you did not make changes to maintain your sobriety?" If the response was affirmative, additional questions followed assessing the intensity of confrontation (Internal Intensity subscale) and supportiveness of confrontation (Internal Support subscale). We used the Internal Support scale as our measure of Supportive Confrontation. Examples of items on this scale included the participant's assessments of how supportive the person(s) were of their recovery, how supportive the person(s) were overall, and how much the confronter was trying to help. Items were rated on a 5-point Likert scale and averaged for each participant. Psychometric support for this scale is derived from several studies (Polcin, et al., 2009; Polcin, Galloway, Bostrom, & Greenfield, 2007). The alpha coefficient across all sources of confrontation was 0.90 and a confirmatory factor analysis yielded a comparative fit index of 0.90. Although a two factor structure was found, only one factor, internal support, was hypothesized to be a moderator of motivation and abstinence. The scale was dichotomized at the median so that scores below 4.5 were deemed 'lower internal support' and those at 4.5 or higher were 'higher internal support'.

Six-month abstinence—Was a single question which asked if any alcohol or drugs were used during the past 6 months (Gerstein, 1994). This dichotomous variable is the primary outcome measure analysed here. Abstinence was chosen because our measure of motivation specifically asked about motivation "to keep sobriety." In addition, abstinence was the explicit goal of all of the recovery homes. For an analysis of outcomes a using a wide variety of alcohol and drug and other outcome measures see Polcin et al (2010).

Important People Instrument (IPI)—The IPI (Zywiak, Longabaugh, & Wirtz, 2002 was used to assess number of important persons in the social network, drinking in the social network and drug use in the social network. This instrument allows participants to identify up to 12 important people in his or her network with whom they have had contact in the past six months. The four most important persons from this list were identified and rated on importance on a scale from 1–6 and mean importance was averaged. Information was obtained on the type of relationship, amount of contact over the past 6 months (a 7-point Likert scale ranging from once in the past 6 months to daily),and drug and alcohol use for each member of the social network (a 5-point Likert scale including ranging from "in recovery" to "heavy user"). Our analyses used three social network measures were dichotomized at the median: 1) size of social network was defined as 'low' if the resident's network was empty or consisted of 1 person, 'high' if 2–12 persons were reported; 2) alcohol use of the social network scale was alcohol use multiplied by the amount of contact with the resident. This scale was scored as 'low' if the mean scale score was 0.83 or less and 'high' if 0.84 or higher; 3) drug use of the social network scale was the drug use of the network members multiplied by the amount of contact with the resident. A 'low' score corresponded to a scale score of 0 and a 'high' scores indicated a scale score above 0.

Alcoholics Anonymous Affiliation Scale (AA affiliation)—This measure includes 9 items and was used to assess the strength of an individual's affiliation with 12-step groups including Alcoholics Anonymous (AA), Narcotics Anonymous (NA), or Cocaine Anonymous (CA) (Humphreys, et al., 1998). The scale includes items assessing attendance at meetings, questions about sponsorship, spirituality, and volunteering for service positions

at meetings. The measure shows strong validity and internal consistency with Cronbach's alphas of 0.85 for treatment samples and 0.84 for community samples. Because the data distribution for this variable was highly skewed we used a dichotomized measure.

Analysis Plan

The main outcome measure of 6-monthabstinence was analysed using random effects logistic regression modelling for panel models, adjusted for age and gender via the 'xtlogit' Stata macro (Stata Corp., 2013). The formal model estimated was: $\text{logit}(p_{i,t}) = \alpha_i + \beta_1 A_i + \beta_1 G_i + \gamma_1 M_{i,t} + \gamma_2 Z_{i,t} + \gamma_3 M_{i,t} Z_{i,t} + \varepsilon_i$, where A_i is the baseline age, G_i the gender (females are the reference), and $M_{i,t}$ and $Z_{i,t}$ represent the motivation (i.e., costs and, separately, benefits) and social support moderator measures, respectively. The random intercept term ε_i represents the combined effect of all unmeasured subject-specific covariates that may result in systematic over or under-prediction of abstinence within individual across the three waves analysed. Such a model estimates the time averaged effect of the number of persons in the social network, alcohol and drug use in the social network, supportive confrontation, and 12-step affiliation measures as moderators of the relationship between motivation measures and 6-month abstinence. Demographic information was obtained from the baseline interview but, because a central goal of the study was to evaluate a population with at least some degree of time in recovery, only data from the 6-, 12-, and 18-month follow-ups were used in the logistic regression models and graphs.

Results

As Table 1 indicates, residents were primarily male (81.0%) and white (65.1%). Most had received a high school education or equivalent (78.5%). Approximately half of the residents had never been married with a minority that were married or living with a partner prior to moving to the SLH (10.7%). Over a quarter had served jail or prison time in the past 30 days (29.1%). Most met DSM-IV criteria for at least one substance in the past year, with about half the sample (49.8%) reporting dependence on 2 or more substances.

Length of stay (LOS) in the sober living residence was over six months on average, although differences were apparent by site. Those residents living in sober living house affiliated with the outpatient treatment program stayed an average of 254 days (sd=169.1). Shorter lengths of stay were reported for individuals in the residential treatment program 143 days (sd=133) and the freestanding SLHs (166.6 days; sd=162.). Few other demographic differences were observed between the study locales except that those affiliated with the outpatient program tended to be older (43 years; sd=9.) compared to those in the residential treatment program 36 years (sd=12.) and freestanding houses (37 years; sd=10.). Residents in the houses affiliated with outpatient treatment also had a higher percentage of African-Americans (70%) and more men (94%).

Psychiatric symptomatology as measured by the Global Severity Index on the Brief Symptom Inventory was higher than normative data on adult non-patient populations but lower than adult psychiatric outpatients (Derogatis & Melisaratos, 1983). Residents entering the residential treatment program had significantly high GSI scores at baseline (1.1; sd=0.7) than those that completed the 90 day outpatient treatment (0.7; sd=0.6).

Table 2 displays variable distributions for motivation and social support scales as well as abstinence. Residents rated the perceived benefits of sobriety much more highly than the perceived costs at every interview. Cross-sectional t-tests comparing perceived costs and perceived benefits at each time point were significant at p < 0.001 at every interview. Within subject repeated measurement for the perceived costs and for the perceived benefits did not differ significantly, indicating that resident ratings of these two measures of motivation remained relatively stable across the one year time span. Social influence variables (i.e., 12-step affiliation, supportive confrontation, drug use in the social network, alcohol use in the social network, and number of contacts in the network) were dichotomized due to highly skewed variable distributions across all follow up time points. Table 2 shows the percentages for the dichotomized categories at each follow-up time point. Most of these variables were consistent over the course of the study, showing only modest variation across data collection time points. The one exception was 12-step Affiliation, which showed a decline, particularly at the 18 month time point.

Table 3 displays beta coefficients for the interaction terms of the perceived benefits and the perceived costs with each of the social influence variables, predicting abstinence. First, two models were first run to examine the marginal effects of perceived benefits and the perceived costs (not tabled). One demonstrated a significant negative relationship between perceived costs and the odds of abstinence ($\beta = -0.8$; 95% CI=-1.0 to -0.6; p<0.001) and a second model showed a significant positive relationship between perceived benefits and odds of abstinence (β=0.6; 95% CI=0.4 to 0.8; p<0.001). Interaction terms, entered in separate models, were then included to test whether social influence measures moderated the relationship between motivation and abstinence. None of the social influence measures moderated the relationship between perceived costs and abstinence. However, significant interactions were evident for the perceived benefits. Interactions included the number of persons in the social network (p<.05) and12-step affiliation (p < 0.05).

The number of persons in the social network interacted with perceived benefits to influence abstinence (Figure 1). For residents with low and high numbers of social contacts, higher perceived benefits was associated with higher abstinence. However, smaller networks were associated higher abstinence than larger social networks across all levels of benefits, but especially when benefits were low. As benefits increased for the larger social network group there was a relatively larger effect on abstinence. For persons in the smaller social network group, increases in benefits resulted in more modest improvement on abstinence.

The relationship between perceived benefits and abstinence also showed differing patterns based on level of 12-step affiliation (Figure 2). Abstinence was highest among persons in the high 12-step involvement group. That finding held across all levels of perceived benefits. However, there was a stronger effect for benefits among the low 12-step involvement group. As perceived benefits increased, the log odds of abstinence increased more among those with low rather than high 12-step affiliation.

Discussion

Research assessing motivation at treatment entry has shown only modest effects on long-term outcome. Less studied is the influence of motivation to maintain abstinence over time once a person has established some time in recovery. The findings reported here and results from previous work (e.g., Korcha, et al., 2011) demonstrate that proximal measures of motivation are strong predictors of abstinence across time. The current paper adds to this literature by showing how social influences alter the impact of motivation on abstinence.

The discussion below begins with an examination of the resiliency of costs and benefits as influential factors on abstinence. The discussion then examines the two social support factors that interacted with benefits to influence abstinence: size of the social network and 12-step involvement. Implications of the findings for sober living homes and other recovery services are discussed along with identification of study limitations.

Resiliency of Perceived Costs and Benefits

Results show that the two ADCQ scales, especially the costs scale, are strong, resilient predictors of abstinence. These scales appear to be useful for predicting outcome for a range of different client groups with different characteristics. We hypothesized that a number of social influences, such as social networks with limited or no alcohol or drug use, high affiliation with 12-step programs and greater receipt of supportive confrontation would mitigate the poorer outcomes observed with higher perceived costs. Yet all of these models, irrespective of the moderator tested, were non-significant. While 12-step affiliation and the size of the social network moderated the effect of perceived benefits on abstinence, neither substance use in the social network nor supportive confrontation had moderating effects.

It is important to remember that we were testing these social factors as moderators of motivation, not their direct impact on outcome. For example, previous research with this dataset (Polcin et al, 2010) showed alcohol and drug use in the social network and 12-step affiliation were strong predictors of outcome. One potential reason for the lack of findings for supportive confrontation is that few individuals yielded low scores on the internal support scale used. There were few counterproductive experiences of confrontation and therefore limited variation of scores. A sample with more varied experiences of how confrontation was received might yield more significant results.

Social influences on abstinence that were found in previous studies (e.g., alcohol and drug use in the social network) appear to be unrelated to motivation as measured by costs and benefits. Social influences may operate independently through containment of impulses to use substances and social reinforcement for continued abstinence. For a qualitative analysis of different ways social influences within recovery homes facilitates abstinence see Polcin and Korcha (2015).

Twelve-step Involvement

The finding that high12-step affiliation was associated with higher abstinence across all levels of perceived benefits supports our previous work (Polcin, et al, 2010). Results suggest that for those with high 12-step affiliation increases in perceived benefits adds little to

maintaining abstinence. Practical application of the finding is limited by the fact that the 12-step model of recovery is not necessarily suited to all persons in recovery (Miller, 2008; Walters, 2002) and other approaches to assist these 'non-affiliated' individuals achieve success are needed. Hoffman (Hoffmann, 2003) suggested that individuals have 12-step career types. Some move in and out of 12-step participation but do not fully commit to it while others have 'tourist careers' with 12-step programs where they attend meetings due to coercion but have little interest in continued attendance.

Even though SLHs follow a social model program of recovery that requires 12-step attendance and promotes resident affiliation with 12-step, only about half the residents reported feeling a high level of connection with a 12-step program. Nearly all residents had left the SLH by the 18-month interview and a noticeable increase in the percentage reporting lower 12-step affiliation occurred at the 12-month interview. These results indicate that 12-step affiliation is not consistent over time and that the road to recovery is not the same for all individuals.

Interestingly, those residents with lower levels of 12-step affiliation increased the odds of abstinence with increased perceived benefits. The most rewarding aspects of sobriety may act as a buffer to using drugs and alcohol for those not interested in active participation in 12-step programs. Treatment efforts aimed at increasing perceptions about the benefits of abstinence may be particularly helpful for these individuals.

Number of Persons in the Social Network

Interaction models were not significant for alcohol or drug use in the social network, but the number of persons in the network, regardless of alcohol or drug use, was a significant moderator of the relationship between benefits and abstinence. Residents with one or no members in their social network showed a trajectory of improved abstinence with increased perceived benefits. However, the increase was significantly less than that found among residents with two or more persons in their network. These larger social networks showed a stronger improvement on abstinence as benefits increased.

One potential explanation for this finding is that individuals with larger social networks might have more opportunities to use the benefits of abstinence as a prophylaxis to relapse. For example, persons with larger networks may engage in more social activities where alcohol or drug use is possible. Possessing a strong sense of why abstinence is important (i.e., the benefits) might be very helpful in avoiding or successfully managing potential relapse situations. Individuals with little or no social support in their networks will have fewer opportunities for benefits to help them avoid relapse in social situations. It was interesting that these individuals with limited social support had higher abstinence than those with higher numbers of contacts across all levels of motivation. It seems likely that some of the participants with limited social support who were achieving abstinence were successfully avoiding contact with persons who could potentially exert a destructive influence.

Given the widespread finding that social contact and social support facilities health and well-being, recovery home service providers might consider ways to increase social support for socially isolated residents through structured recreational and social activities within the

home or facilitating involvement in outside activities. For example, individuals with little or no social support in their personal networks might need the structured social support found in 12-step meetings, even though they might not indicate fellow 12-step members as "important people" in their lives, which is how the size of the social network item is worded.

Strategies for Maximizing Motivation

Study results support the importance of addressing several issues to facilitate recovery. First, our findings suggest that the emphasis that SLHs place on 12-step involvement is warranted. Although 12-step involvement interacted with benefits to influence abstinence, higher involvement in 12-step groups was associated with higher odds of abstinence across all levels of perceived benefits. Residents identifying few important people in their lives might particularly benefit from such involvement.

Second, strategies that help individuals learn how to cope with the challenges (i.e., costs) that abstinence presents are essential. In the current study as well as in previous work (e.g., Korcha, et al., 2011), motivation as measured by the costs scale had a consistent and robust association with outcome. The absence of moderators suggests that addressing costs should be an important part of the recovery process for all persons with substance use disorders. Cognitive behavioural therapy (CBT) interventions that address ways to cope with the challenges of recovery, such as those described by Kadden et al. (1994) and Carroll (1998) seem to be warranted. These types of interventions address issues that can exacerbate substance use, such as anxiety and depression, difficulty socializing, and discomfort when experiencing urges to use. Moreover, they provide alternative ways of getting needs met that substitute for alcohol and drug use. Our results suggest that addressing the costs associated with abstinence should be conducted over the course of recovery, not limited to relatively brief periods during treatment. Although SLHs do not typically provide formal services such as CBT, modifications could be made to provide them in a group format onsite.

Our results also suggest that service providers pay attention to the experienced benefits of sobriety over time, particularly with some subgroups. Individuals with higher numbers of contacts in their social networks and lower involvement in 12-step groups were those who were most impacted by benefits. It therefore makes sense to target efforts to increase perceived benefits most among these subgroups. The same aforementioned CBT strategies can be used to help individuals recognize the benefits of sobriety and use those recognitions as a prophylaxis to alcohol and drug use.

Limitations

There are a variety of limitations that need to be considered:

1. Our study sample consisted of SLH residents in Northern California and outcomes may not generalize to other populations, although SLH residents may be more representative of a broader community context than traditional treatment seeking samples (Jason & Ferrari, 2010).

2. Concomitant with using self-report measures is the possibility of under- or over-reporting although random urine screens were implemented and agreement with self-report was high.

3. Motivation has been measured in a variety of ways other than assessing perceived costs and benefits. Other measures of motivation may show different associations with abstinence and social support.

4. It is difficult to know whether our findings continue beyond an 18-month time period.

5. There were limitations in our variable distributions. Most of our measures were highly skewed and were therefore dichotomized for analyses. This was particularly the case for the internal support scale, which was used as our measure of supportive confrontation.

6. Because we assessed "motivation to maintain sobriety" our outcome variable was abstinence. Other outcomes, such as ways that motivation impacts severity of alcohol and drug problems, could result in different findings.

Acknowledgments

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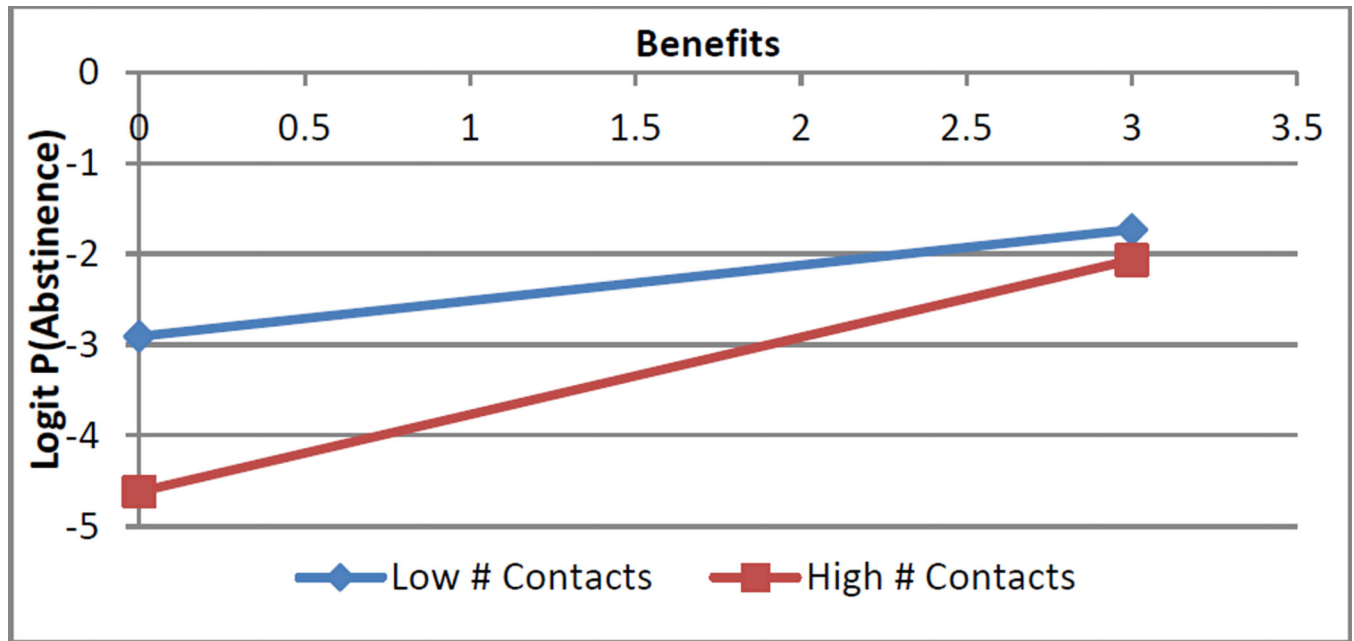
Figure 1.
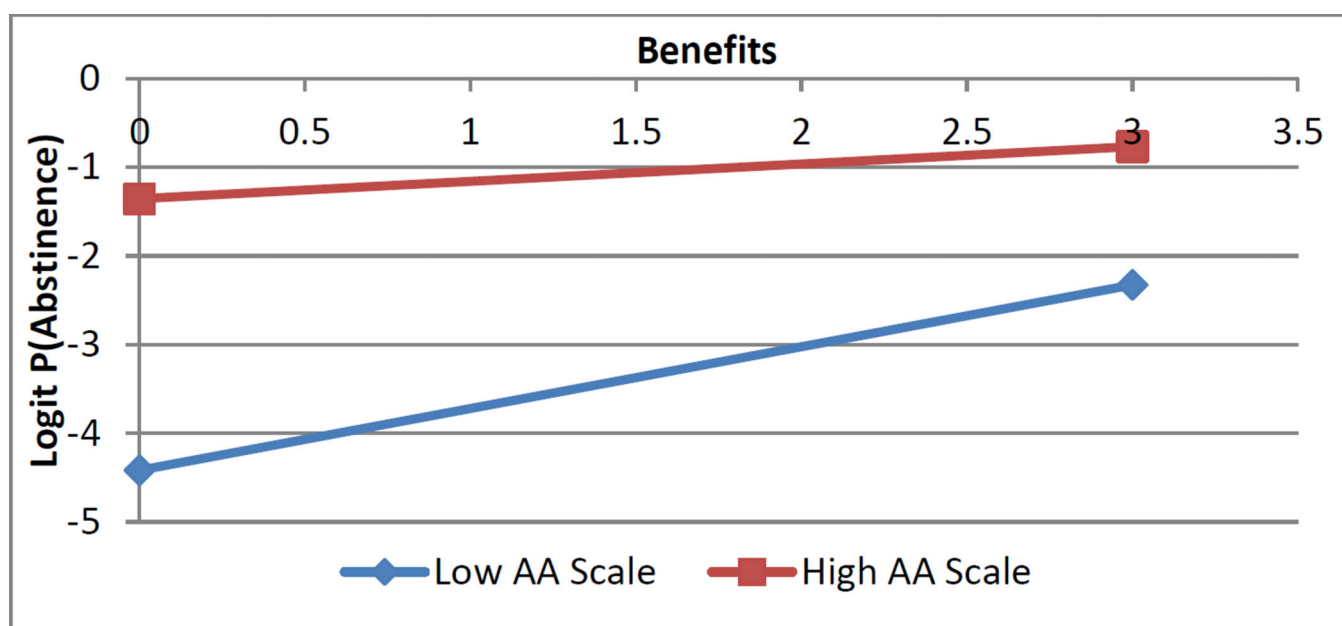Perceived benefits by number of persons in the social network at each interview.

Figure 2.
Perceived Benefits by 12-step affiliation at each interview.

Table 1

Baseline demographic characteristics of the SLH residents (N=289).

	%
Male	81.0
Marital status	
Never Married	50.9
Married or live-in relationship	10.7
Divorced/separated/widow(er)	38.5
Children under 18	46.0
Race/ethnicity	
White/Caucasian	65.1
African-American	18.7
Hispanic	8.0
Other	7.6
GED/High School Education	78.5
Other Environments in (past 30days) Jail/prison	29.1
Any inpatient or outpatient treatment	56.7
Any employment (past 30 days)	25.6
Any substance use in the 6 months prior to SLH entry	17.0
DSM-IV dependence (past 12 mos)	
None	12.9
Alcohol only	11.5
Methamphetamine only	15.3
Cocaine only	6.2
Opiate only	3.5
Marijuana only	0.8
Multiple drug dependency	49.8

	$\bar{x}$ (sd)
Age	37.5 (10.1)
Length of stay at SLH (# days)	181.9 (166.4)
Global Severity Index (GSI)	0.83 (0.75)

Table 2

Characteristics of the predictor variables and percent abstinent at each study interview (N=289).

	6-month	12-month	18-month
	$\bar{x}$ (sd)	$\bar{x}$ (sd)	$\bar{x}$ (sd)
Costs	0.9 (1.0)	0.8 (1.0)	0.8 (1.0)
Benefits	4.0 (1.1)	4.1 (1.1)	4.0 (1.1)
	%	%	%
Percent 6-months abstinent	45.5	49.1	43.1
# of contacts			
Low (0 or 1 person)	62.0	55.3	61.1
High (2 to 12 persons)	37.6	44.7	38.9
Alcohol use of network scale			
Low (0 to 0.83)	51.2	50.6	51.1
High (0.84 to 10)	48.8	49.4	49.9
Drug use of network scale			
Low (0)	65.3	67.7	67.4
High (0.01 to 10)	34.7	32.3	32.6
Supportive Confrontation			
Low (0 to 4.49)	47.5	41.5	43.4
High (4.50 to 5)	52.5	58.5	56.6
12-step Affiliation			
Low (0 to 6)	43.8	49.2	63.9
High (6.01 to 10)	56.2	50.9	36.1

Table 3

Beta coefficients of the interaction of social influence and motivation predicting abstinence

	Interaction of social influence measure and benefits		Interaction of social influence measure andcosts	
	β	95% CI	β	95% CI
# in the social network	**0.5**[a]	**0.03, 0.9**	−0.01	−0.5, 0.5
Supportive Confrontation	−0.3	−0.9, 0.3	−0.02	−0.4, 0.5
12-step affiliation	**−0.5**[b]	**−1.0, −0.03**	−0.01	−0.4, 0.5
Alcohol use in the network	0.4	−0.04, 0.8	0.02	−0.5, 0.5
Drug use in the network	0.2	−0.3, 0.6	0.02	−0.5, 0.5

Note: All models control for age and gender

[a] $p < 0.05$; interaction illustrated in Figure 1 below

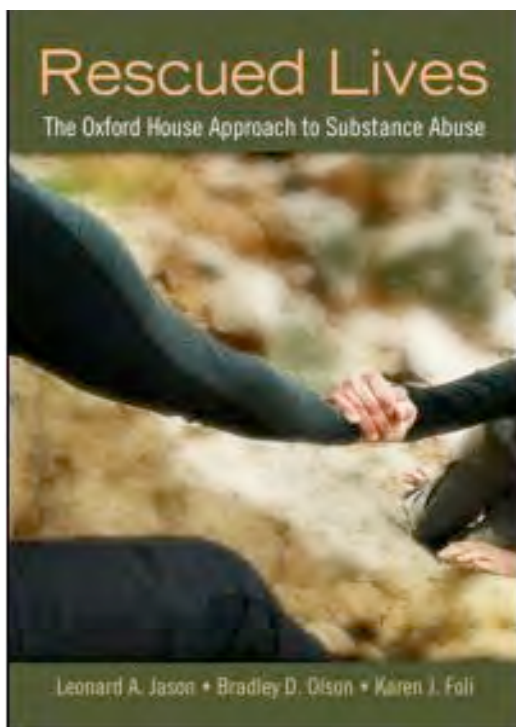[b] $p < 0.05$; interaction illustrated in Figure 2 below

Oxford House™
"Celebrating 35 Years"

Reprint

Oxford House – The Model

12th Oxford House World Convention
The Fairmont Hotel - Chicago, IL
September 2-5, 2010

Rescued Lives: The Oxford House Approach to Substance Abuse was published July 2008. The book by Leonard Jason, Bradley Olson and Karen Foli has received the following early reviews:

"With both passion and detail, the authors chronicle the extraordinary social forces that shaped the revolutionary Oxford House Movement. In doing so, they show why the pursuit of elegantly designed, but de-contextualized approaches to drug treatment often fall short, and how a more contextualized, peer-centered approach can bring about long-term recovery."

Jean Rhodes
Professor of Psychology
University of Massachusetts, Boston

"*Rescued Lives: The Oxford House Approach to Substance Abuse* offers value for two diverse audiences. For those involved in addiction treatment, it provides a clear, concise, and vivid presentation of a novel, effective, and cost-efficient approach. For community psychologists, it offers a fine illustration of a program that puts into action several of the discipline's core concepts, including social support, self-help, empowerment, tolerance for

and promotion of diversity, and psychological sense of community. A stimulating and compelling brand of powerful first-hand vignettes and solidly designed quantitative and qualitative research. "

David Glenwick, PhD
Professor of Psychology
Fordham University

"Remarkable … **Rescued Lives** cogently combines personal experience, exhaustive research, and clear descriptions to tell the story of the Oxford House approach for treating substance abuse, especially alcoholism … insightful … demonstrates what effective university-community partnerships can accomplish in understanding an important phenomenon over a sustained period of time … Offers challenges to the conventions that have produced a costly, ineffective health care system for treating addiction … A better future for substance abuse treatment starts with reading **Rescued Lives**. "

Chris Keys, PhD
Professor Emeritus and Former Chair
Department of Psychology
University of Illinois at Chicago

Rescued Lives: The Oxford House Approach to Substance Abuse is available from Amazon or directly from the publisher Routledge. Simply go on line and put Routledge into Google and then put either the book title or author [Jason] in the search window. The price of the book is $29.95 plus shipping. It is a good read and tells the story of Oxford House well.

Many of the scholarly research articles published by the DePaul group are downloadable by clicking on "Publications/Evaluations/DePaul" on our website: www.oxfordhouse.org.

See inside of back page for information concerning an earlier publication by the DePaul group that reports on specific studies of Oxford House done by them over the last 14 years.

Oxford House – Together We Can

Washington, D.C. Convention 2009

Oxford House–The Model

The Federal Anti-Drug Abuse Act of 1988, P.L. 100-690, required each State to establish a revolving fund to make loans to six or more recovering individuals to rent houses to use as self-run, self-supported group homes that are alcohol and drug free. The law was based on the then thirteen- year experience of the national network of self-help Oxford Houses. Today, after 33 years experience, there are more than 1,300 Oxford Houses throughout the United States.

This paper explains how to start self-run, self-supported recovery houses in your state. It is a simple concept, based on the Oxford House experience, and provides a cost-effective way to help thousands of individuals recovering from alcoholism and drug addiction to avoid a return to addiction by living a comfortable life without the use of alcohol and drugs. Recovering individuals living together in the disciplined environment of an Oxford House in a good neighborhood are almost always able to help each other stay clean and sober without relapse.

The requirement that states have recovery home revolving loan funds is now permissive but many states continue them. In other areas, various groups have established similar start-up funds. In other places, recovering individuals themselves simply put together three or four thousand dollars to help get a new house started.

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Characteristics of Oxford Houses

Oxford House, Inc. is a network of self-run, self-supported recovery houses. It is not part of Alcoholics Anonymous or any other group, but its members rely on AA and similar self-help programs for additional outside support. In its first twelve years [1975-1987], it expanded quietly from one house to thirteen houses without any outside financing. Following enactment of the Anti-Drug Abuse Act of 1988, Oxford House, Inc. established an expansion program utilizing trained outreach workers and the small start-up loan program available under the new law. Now there are more than 1,000 Oxford Houses throughout the United States. Most residents of Oxford Houses have become comfortably clean and sober even though they had often failed in the past. This paper describes how self-run, self-supported Oxford Houses are established and maintained following a disciplined democratic system of operations.

Oxford House, Inc. does not own property. It simply encourages groups of recovering individuals to rent houses and become affiliated with the Oxford House, Inc. network of individual houses. Such affiliation brings with it the Oxford House System, which is not difficult to learn but is very effective. The Oxford House System fosters democratically run group housing and an operating framework tailor-made for the individual recovering from alcohol or drug addiction.

By the time many persons addicted to alcohol or drugs get serious about recovery, they have lost their normal living accommodations or at best made their living in them very difficult. Going home becomes either impossible or risky for continued recovery. Oxford House can provide a transitional home between early recovery and past homes or new homes. It can also provide a permanent home for those who decide that they prefer living in a supportive group environment to living alone.

Since Oxford House is democratically run and self-supported, the members living in an Oxford House vote to determine if an applicant for membership is accepted.

When an individual is accepted for membership in an Oxford House, there is no time limit on how long he or she can live there, but use of alcohol or drugs or non-payment of rent will result in expulsion. That simple policy lies at the heart of what Oxford House is and what makes it work.

Recovering individuals interested in self-run, self-supported recovery houses have two options. If they are in an area where Oxford Houses already exist, they should investigate the possibility of admission to one of those houses. Applications for residence are available at each house. If there is not an Oxford House in their area, or if the existing houses are full, they should consider starting one.

Establishing A New Oxford House

The steps generally necessary to get ready to get a new Oxford House started are:

1. Contact Oxford House, Inc. (1-301-587-2916) to ask for help and obtain detailed information about "How Oxford House Works."

2. Contact other recovering individuals in the area who are interested in starting an Oxford House.

3. File an application with Oxford House, Inc. for an Oxford House Charter.

Step 1. Getting Information

In addition to reading this technical assistance paper, you may want to find out more about how an Oxford House works. Oxford House World Services, the non-profit, tax-exempt corporation that acts as an umbrella service organization for all Oxford Houses, can provide you with additional information and encouragement based upon its 29-year experience. You may contact:

> Oxford House World Services
> 1010 Wayne Avenue, Suite 300
> Silver Spring, Maryland 20910
> Telephone (301) 587-2916
> Facsimile (301) 589-0302
>
> Internet: www.oxfordhouse.org

Many states and other public and private organizations have contracts with Oxford House World Services to provide on-site technical assistance. Oxford House World Services can put you in touch with them. If your area does not have such a contract, Oxford House World Services can suggest ways to get one. Often local organizations provide money to get technical assistance from Oxford House World Services to assure proper establishment of a new Oxford House.

Step 2. Getting Members

The original Oxford House got started because several recovering individuals decided to work together to start it. After the first house had been going a few months, three members of the first house decided to start another. Those three members became "Charter Members" of the new house – that is, they asked the other members of the first house if they could receive authorization to replicate the first house at another location. The members of the first house not only agreed that they could, but also lent them money to help get the second house started.

Step Two of starting a new house consists of finding at least two recovering individuals willing to live in the new house. Of course, it is better to find three, four, five, six or more recovering individuals who want to live together in an Oxford House from the start, but that is sometimes difficult to do. Oxford House, Inc. encourages charter applicants to get as many charter members as possible because the larger the number, the easier it is to assume that expenses of the new house can be met. Nevertheless, interested individuals should not be discouraged from contacting Oxford House, Inc. just because they have only a few prospects as charter members. Oxford House, Inc. will be able to suggest ways to find other prospective charter members in the particular locality. Among other principles of Oxford House is one that limits affiliation to single-sex houses accommodating *at least six* residents (the average number of residents in an Oxford House is between eight and nine).

Step 3. Formally Applying For A Charter

Self-run, self-supported recovery houses can be started by anyone and may stand-alone or be formally affiliated with Oxford House. Oxford House affiliation is advantageous for a new house because of the mutual support that can come from such an existing organization.

Once a group that is interested in starting an Oxford House has been formed, it should file an application for a charter. An application for a charter can be obtained by calling Oxford House World Services office at 301-587-2916 or can be downloaded from the Internet at www.oxfordhouse.org.

Bottom–Up Democracy and Support

The advantage of becoming affiliated with the Oxford House Network of Recovery Houses is the ability to share the experience of other self-run, self-supported recovery houses. Most Oxford Houses make monthly contributions of $50 to help pay the expenses of Oxford House World Services.[1] The monthly contribution per

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[1] At the first annual Oxford House World Convention in 1999 the individual houses established a goal for each house to make a $50 a month voluntary contribution to support the World Services Office and many do. These voluntary contributions combined with grants,

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house amounts to about $5 a resident and is payable out of house funds rather than as an individual assessment.

Individual Oxford Houses work together at a local level by forming Chapters. Within the Chapter framework most houses pay a small amount of monthly dues to defer expenses.[2]

Since 1997, the World Council has governed the policies and programs of the organization. The individual Oxford Houses elect the World Council.[3] The Oxford House, Inc. board of directors is made up of outside directors with representation of the World Council. It determines the overall business practices of the organization.

There is **no charge** for the Charter, but each house must maintain its operation consistent with the following conditions:

- A new Oxford House must be run in accordance with the concept, system of operations and traditions of Oxford House as set forth in the *Oxford House Manual©*.

- A resident member of a house must immediately leave if such member returns to using alcohol or drugs or fails to keep up with his or her share of the costs for operating the house, and

- A new Oxford House must be a good neighbor in the community and pay its bills in a timely manner.

- Groups of Oxford Houses in a locality form chapters to follow mutually supportive principles set forth in the *Oxford House Chapter Manual©*.

The charter becomes a valuable asset for providing support when a house is faced with the problem of having to expel a resident because of a return to drinking alcohol or using drugs. Expulsion of a member who has relapsed is always difficult but it becomes easier when members balance the decision to

expel against the risk of losing the house charter if they fail to maintain an alcohol and drug free environment.

Another value of the Charter is that a new Oxford House becomes part of Oxford House, Inc., a non-profit corporation that has been recognized as qualifying under section 501(c)(3) of the Internal Revenue Code as a tax-exempt organization.[4] This status permits individuals who make donations to claim a tax deduction.[5]

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Finding the Right House

As a general rule Oxford Houses are located in good areas of a community and not in slums. Recovering individuals have enough to do in staying sober and straight. There is no need to add fear of safety or poor living conditions to their effort[6]. Experience has shown that by living in a good house in a good neighborhood, all individuals, whether from poor, middle class or wealthy neighborhoods, value their living accommodations and have an additional incentive to stay clean and sober.

From a zoning standpoint, Oxford House has always maintained that its members should be treated the same as any residential family. In at least one locality the city council has passed a resolution finding Oxford House to be a residential family classification for

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contracts and other contributions provide financial support for the national World Services Office to assure development of a strong network of individual Oxford Houses.

[2] In 1999, the average chapter dues were $2.50 per resident per month. Chapter dues are used to keep individual houses in the chapter informed of meetings, events and programs fostered by the local cluster of Oxford Houses.

[3] In 1997 Oxford House, Inc. reorganized in order to have some outside directors to enable a faster expansion of the number of Oxford Houses. However, the reorganization kept the elected national group [the World Council] to make certain that the traditions and charter conditions of Oxford House are maintained. At an annual convention individual houses elect members of the 12-member World Council for staggered 3 - year terms of office.

[4] Any non-profit corporation can apply for tax-exempt status but it must (1) incorporate as a non-profit corporation, and (2) demonstrate that it is in fact non-profit. It takes up to two years to get recognition as qualifying under Section 501(c)(3) of the Internal Revenue Code. The same result can be obtained by affiliating with Oxford House, Inc.,

[5] The Internal Revenue Service often checks deductions claimed by taxpayers against the records of the recipient of the claimed donation. Therefore it is important that the tax-exempt organization keep accurate records so that the contributor does not get in trouble with the IRS. Oxford House, Inc. is a tax-exempt organization recognized as qualifying under Section 501(c)(3) of the Federal Internal Revenue Code. It will act as a central "record keeper" for individual Oxford Houses. It makes sense for new houses to get a charter from Oxford House, Inc. in order to become eligible to receive contributions, but the houses must follow the reporting rules of Oxford House, Inc. in order to assure proper record keeping. [Read the Oxford House pamphlet "contributions."]

[6] While all Oxford Houses are presently in good neighborhoods, Oxford House, Inc. has occasionally considered some good houses in not very good neighborhoods. Those houses were rejected primarily because individuals recovering from addiction to drugs pointed out the existence of drug trafficking in the area. Unlike liquor stores, which do not push their product door to door, drug dealers are less passive.

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5

zoning purposes[7]. In every situation members living in an Oxford House have proved themselves to be good neighbors and zoning ordinances have not been a barrier. Moreover, the Fair Housing Act Amendments of 1988 (effective March 1, 1989) make it unlawful to discriminate against disabled persons such as those living together in self-run, self-supported recovery houses.[8]

The size of a house to be rented is significant. Experience has shown that at least four good-sized bedrooms are necessary. Experience has also shown that at least several of the bedrooms should be suitable for two people. Isolation and loneliness are threats to sobriety – particularly for the newly recovering. From an economic standpoint, expenses are best managed when the house is fully utilized. The goal should be to use a house as a large family would but to avoid overcrowding.

Experience has also shown that the only threat of an Oxford House being less than a good neighbor is the automobile. Members living in an Oxford House need to be careful not to use all the parking spaces in a neighborhood and not to park their cars in a way that makes their house look like a used car lot. In seeking a house to rent as a new Oxford House, keep in mind that once recovering individuals have been sober, they begin to get their finances straightened out and will often acquire a car. Can it be parked in a place that does not offend the neighbors?

Oxford House, Inc. can provide good information about the type of house to rent. However, the following rules of thumb are helpful to keep in mind:

• utilities and other costs usually run about fifty percent of monthly rent, therefore per member monthly payment will be the number of members in a house divided into 150 per cent of the rent[9];

• the amount of weekly rent a member can afford depends upon the locality, but as a general rule members can afford between $55 and $115 a week to cover rent and other expenses;

• some vacant beds are to be expected during the first three to four months of operation (individual costs are higher when there are fewer members living in a house) because a new house takes time to become known (this can be overcome by lining up a greater number of charter members willing to move in on Day One) and some individuals will be kicked out because they relapse, thereby causing a vacancy until a new member is voted in. Keeping a member's rent paid in advance minimizes the economic impact of this event; and

• new houses are generally able to get donated furnishings.

Experience has shown that individual members of AA or NA are very helpful to newly recovering individuals who want to start an Oxford House. Newly recovering individuals should ask older recovering members for help in finding a house to rent and getting a charter from Oxford House, Inc. approved. Some older recovering individuals may even own rental property they are willing to rent to a new Oxford House. Generally, every Oxford House has paid rent on time and, if a house is adequate, the residents will continue to rent it year after year.

Rehabilitation facilities, local government alcohol and drug rehabilitation programs, and local halfway houses have also proven useful as sources of help for new houses. Generally, local halfway houses have a time limit for residents and welcome the opportunity to have an Oxford House in their locality to provide further transitional housing for recovering individuals. Any doubts they have about how Oxford House works can be alleviated through contact with a member of the Oxford House Staff. From a landlord's standpoint, Oxford House residents make good tenants. The groups tend to live in a house year after year, whereas the normal renter may move every few years. This fact alone is of great value to a landlord who avoids missing any monthly rental income and does not have to refurbish the property continually to attract a new tenant.

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[7] The Chief of the Bureau of Inspections for the City of Bethlehem, Pennsylvania on September 11, 1987 made the following finding: "After reviewing your letter and review of the 'Oxford House' literature, regarding recovering alcoholics living together in a self-supported dwelling, I have concluded the proposal is within the definition of a 'family': as defined in the City of Bethlehem, Pa. Zoning Code."

[8] The United Supreme Court on May 15, 1995 issued a decision in *City of Edmonds, WA v. Oxford House, Inc.* [514 U.S. 725] which confirms that recovering alcoholics and drug addicts in an Oxford House are "handicapped" within the meaning of the Federal Fair Housing Act, as amended, and local jurisdictions must make a reasonable accommodation in local zoning laws to avoid discrimination under the Act. Likewise, casualty insurance companies must offer the same homeowner's policy to landlords renting to an Oxford House group as to an ordinary family. *Wai and Oxford House, Inc. v. Allstate Insurance Company, et. al.* [75 F. Supp. 2d 1 (DDC 1999)].

[9] This rule of thumb applies except in regions where the rent for a four to six bedroom house is very high (above $2,500 per month) or low (less than $600 or $700 a month). In high rent cases the "150% rule of thumb" will overstate the amount of cost per person and in low rent cases it will understate the cost per person. Oxford House can provide worksheets to compute actual costs. Such actual computation is always better to use than the "rule of thumb."

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6

The physical qualities of a house should include the following:

good location - location of the house is very important since a poor location can result in drug pushers and crime; a good location can provide incentive to stay clean and sober;

adequate size - size of the house is important because enough space is needed to comfortably accommodate a large "family" of recovering individuals;

adequate facilities - facilities of the house should be adequate to accommodate the individuals living in it including one bath or shower for every four residents, a dishwasher to assure good health and at least one common room suitable for family like gatherings to discuss the new lifestyle free of alcohol and drug use; and

proximity to public transportation - in urban areas, proximity to public transportation is important because many individuals in early recovery from addiction to alcohol or drugs will not have an automobile.

Starting a new Oxford House takes some work, but help is available and the rewards are considerable – for many, the rewards are life saving.

Rehabilitation facilities are often willing to help a new house since Oxford House has been of great value to many rehabilitation facilities in their efforts to provide aftercare, which increases the chances of recovery. Alcohol and drug treatment programs run by local governments are usually very interested in the Oxford House concept because of its low cost and relapse prevention potential. Potential landlords with an interest in alcohol or drug abuse rehabilitation are often willing to help. Good business and doing good can go hand in hand. And, of course, individual members of AA and NA can usually be relied upon for support.

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Moving In

Newly-weds in America will generally "set up housekeeping" on their own. They usually do so with very few furnishings – a bed, some linens, dishes, and few pots and pans for cooking. So, too, with the residents of a new Oxford House.

The new group that has found a house and applied for its charter cannot simply wait to get all the furnishings needed. The rent for the house must be paid; the

recovering individuals need a place to live. It is often necessary, therefore, to move in with a minimum of furnishings.

The first item to obtain is beds. Frequently, potential residents of the house have a bed to donate. Retailers of beds often have mismatched twin bed sets that they will donate to Oxford House – which is a 501(c)(3) tax-exempt organization. If they will not donate the beds, they may be willing to sell the mismatched beds at a substantial discount.

Twin-sized beds are best and, whenever possible, it is advisable to have two people to a bedroom in an Oxford House in order to guard against isolation, loneliness and depression which can be a threat to sobriety while an individual is in early recovery.

Once beds are in the new house individuals can move in – the other necessary household furnishings can be obtained after individuals are living in the house and paying rent. Suggestions for getting the other items are listed in random order below:

• **Dishes, pots and pans** and other kitchen utensils are most often obtained by simply letting members at an AA or NA meeting know that the new house needs these items – if that does not produce results, try "Good Will" or a thrift or second-hand shop.

• **Tables and chairs** for the kitchen and dining room are also most often obtained by letting those in AA or NA know that the new house needs tables and chairs – others who can be asked for donations include church groups, veteran's groups, and service clubs such as the Lions, Rotary, Elks or Moose.

• **Chests of Drawers** and small tables for the bedroom are sometimes hard to get because families have a tendency to keep chests around for extra drawer space even when they are replaced. However, if you let people know you need them, you may be surprised. Again thrift shops, household content sales and yard sales may be a source for reasonably priced chests and tables. The local furniture store may have seconds, or discontinued or damaged merchandise. A house with an Oxford House Charter will be recognized as part of a 501 (c)(3) charitable organization, so that businesses and individuals can claim a tax deduction for the value of whatever is donated.[10]

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[10] Material sent when a house receives an Oxford House Charter includes a booklet; "Reporting Donations for Tax Purposes," which explains the record keeping that must be done to permit individuals or

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7

• Because the new Oxford House will be a family to a number of individuals who will prepare their own main meal, extra **refrigerator** space will probably be needed. The local appliance dealer will have some good second-hand refrigerators. As a rule of thumb, each member of the house should be able to use two refrigerator shelves.

• A **microwave** oven will help reduce the time that individuals need in the kitchen, but a house generally waits until a house is going a few months before it accumulates the money to buy one.

• A **clothes washer** and **dryer** are often standard equipment in a rental property.

• A **vacuum cleaner** and **rugs** are items that a new house usually seeks. They may not be essential, but both go a long way toward making a house a pleasant place to live in.

Although it may seem difficult to furnish a whole house, the members of an Oxford House will find that slowly but surely a house gets comfortably furnished.

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Organizing The House

Oxford House is a **concept** and a **system of operation**. The two go hand-in-hand. The concept is that recovering individuals can live together and democratically run an alcohol and drug-free living environment which supports the recovery of every resident. The system of operation is the nuts and bolts or how to make a self-run, self-supported recovery house work.

The Oxford House System of Operation has worked well for twenty-eight years and has evolved into practices and procedures that work well for establishing a new Oxford House and keeping it on track once it has been established. Because recovering alcoholics and recovering drug addicts developed it, it takes into account the way responsibility is learned or relearned by those afflicted with alcoholism or drug addiction.

At the heart of the system of operations is fairness assured by democratic procedures and elected officials from within the Oxford House resident community. Each House officer is democratically elected for a term not to exceed six months in the same office. The

limited term of office for any particular office minimizes the chance that an individual prone to bossism will dominate an individual self-run, self-supported recovery house. Democracy, however, lies at the heart of the Oxford House system of operations – both for practical and therapeutic reasons.

As products of the democratic traditions of the United States, all members of an Oxford House can readily understand the utilitarian aspects of deciding issues by a majority vote. From the New England town meeting to the Congress of the United States, the practicality of resolving disagreements through the freely cast vote is understood. In an Oxford House the vote can resolve the color of a rug to be purchased, the assignment of clean-up chores, and the expulsion of a member who has relapsed.

Perhaps less clearly understood are the reasons that a democratically self-run recovery house provides special help to recovering individuals undertaking the task of developing a new lifestyle – often after years of practicing a lifestyle dominated by addiction to alcohol and drugs. Because Oxford House works to help individuals undergo that change in lifestyle, it is worth the time to consider the role that democratic rule by peers – and only peers – plays in the process. There is no better place to turn for a thorough understanding than the political commentaries about the system of government adopted for and tested by the more than two hundred years of history of the United States.

A starting point is an observation written in the 50th *Federalist* paper used to convince the Nation's forefathers that they should adopt the Constitution. "If men were angels," said the 50th *Federalist*, "no government would be necessary." As recovering individuals, each member of an Oxford House knows that men and women are not "angels". By the same token, involvement in Alcoholics Anonymous and Narcotics Anonymous convinces one that all men and women are neither depraved nor immoral. Author Arthur M. Schlesinger, Jr. summarized the value of democracy in achieving the balance between perfection and depravity in the following ways:

> Democracy, properly construed, assumes neither total perfectibility nor total depravity. It sees humans simultaneously as tainted by original sin and as capable of redemption.

It is this "capability of redemption" that permits recovering individuals to live together in an alcohol and drug-free environment and work together to preserve that environment, accept responsibility and learn a new individual lifestyle free of alcohol and drug use. Always on guard against reverting to old behavior

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business to claim a tax deduction. Such information can also be obtained from the local office of the United States Internal Revenue Service.

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8

patterns, each individual works as part of the group to learn values such as tolerance, caring and responsibility without having anyone to blame or fault for conditions as they exist. All the recovering individuals in a house are in the same boat; their common enemy is addiction to alcohol and drugs; their common goal a new lifestyle comfortably rid of both alcohol and drugs.

Just as the Constitution provides a framework for democracy to work in the United States and the Twelve Steps and Twelve Traditions provide a framework for Alcoholics Anonymous and Narcotics Anonymous to work, so too do the Oxford House System of Operations and Oxford House Traditions provide a framework for the self-run, self-supported recovery house to work. Some rules of procedure are necessary for democracy to work and these include the election of officers, the management of finances, acceptance of new residents, and removal of those who return to the use of alcohol or drugs.

Officers elected in an Oxford House are but "trusted servants" and their power is limited by the will of the majority and the Oxford House Traditions. The term of office in any one office is for a continuous period no more than six months. (An individual can be elected to the same office again after an intervening term of six months has elapsed. This is often necessary in smaller houses having very little turnover.)

The number of officers in an Oxford House depends – in part – upon the particular house. Every Oxford House elects the following officers:

❑ President

❑ Treasurer

❑ Comptroller

❑ Secretary

❑ Coordinator

Each of the above officers has a specific role to play in making the Oxford House System of Operations work.

The **President** presides at the weekly business meeting of the house. In that role he or she brings up items of business in a regular order, recognizes all the members wishing to comment on any issues, and conducts votes to determine the decision of the membership, when appropriate. Usually the President of an Oxford House will be one of two individuals whose signature

will be required on each check written by the House. (The other signature required is generally that of the Treasurer.)[11]   Finally, each of the house presidents exercises leadership by resolving disputes among house members, listens to individual members who have problems, and represents the entire house in monthly Chapter meetings where several Oxford Houses in a geographic area work with each other to assure the good name and high quality of all Oxford Houses.

The **Treasurer** has primary responsibility for maintaining the finances of an Oxford House in good order. The Treasurer keeps the checking account in balance, writes checks for timely payment of house bills, collects the rent and lets the members know the financial status of the house at every weekly business meeting. Most houses post the Treasurer's Weekly Report in a prominent place in the house so that each member can examine it at his or her leisure. There are no secrets when it comes to house finances.

The **Secretary** records minutes of each house business meeting. Those minutes are read at the next business meeting so that the group will be able to focus on unfinished business and continually keep track of house problems, policies and decisions. The Secretary also keeps track of applications for membership in the house, arranges interviews for applicants, and maintains a file of applicants accepted and rejected. After a house has been in existence a short period of time, the number of applications is likely to far exceed the number of spaces available.

The **Comptroller** is an assistant to the Treasurer and has primary responsibility for collecting weekly 'rent' from the members of the house on time. Every self-run, self-supported recovery house charges each member the same amount of weekly rent and the amount of rent is an equal share of the house expenses. Because there is no "fat" in the weekly share of expenses assessments, everybody must pay on time. Each week the entire house discusses what to do about any member's overdue share of expenses. In general, most houses try to collect the equal share of expenses at least one week in advance of when it is due.

The **Coordinator** is – in many ways – the most important office in the house. He or she must assign

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[11] Proper management of finances is very important in a self-run, self-supported recovery house. Two signatures are always required to write any checks. The money belongs to all the members of the house as a group and great care has to be taken to make certain it is expended only for expenditures authorized by the group.

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9

and review weekly chores that every resident in the house must undertake to keep the house neat and clean. Because the offices are held for only six months, everyone tends to cooperate because each person knows he or she may be elected Coordinator the next time around. Working together to keep a house clean is one of the ways house members learn responsibility and gain self-esteem.

Group decisions are made by majority vote, except with respect to admission of new members into the group. To admit a new member, an 80% favorable vote by existing members is needed. The purpose of the 80% vote is three-fold: (1) acceptance of a new member into the group involves a commitment by nearly everyone in the house and a newcomer should be assured a supportive environment when he or she moves in; (2) knowing that an 80% acceptance vote is needed, the newcomer will value his or her admission more than if admission were by a simple majority, and (3) an 80% admission vote forces thoughtful consideration by the entire house when a newcomer applies for admission.

The *Oxford House Manual*© provides guideposts for organization of an Oxford House. Within a matter of weeks the self-run, self-supported recovery house can be operating smoothly if organizational procedures are followed, including a business meeting in the house at least once a week. (There are no AA or NA meetings held in an Oxford House, but the members of a house tend to go to an average of five or six AA or NA meetings outside the house each week.)

The importance of the weekly business meeting cannot be overstated. It not only serves to keep the members of a house up-to-date concerning the financial matters of the house but also serves as a place to resolve personality differences between house members. It also provides a forum in which peer pressure can be used to encourage each member to work his or her own 12-step program of recovery. In brief, the house meeting becomes an important opportunity for members to help each other keep on a steady course to develop a new comfortable lifestyle that is free of alcohol and drug use.

The most difficult – and most important decision – a self-run, self-supported recovery house has to make is whether or not a resident has returned to using alcohol or drugs. The decision is made at a meeting of the house residents. The members consider the facts – all of who know about addiction from their own experiences – and a vote is taken on whether or not a relapse has occurred. If a majority of the members vote that the resident has relapsed, he or she must leave immediately.

Since recovering addicts are highly vulnerable to relapse, it is likely that many houses will have some members who relapse. Each member, however, realizes that the system works only if the relapser is expelled. The common welfare of the group in maintaining an alcohol and drug-free living environment is too great to risk by not expelling any individual at the first sign of a relapse. Moreover, each member knows that failure to expel a member who has used drugs or alcohol places the charter of their house at risk. Oxford House, Inc. makes it clear that a charter can be revoked if members who return to using are not expelled.

Once a member has been expelled, he or she is normally not accepted back into the same Oxford House. However, the member may be accepted into another Oxford House following a period of thirty days' sobriety.

The expulsion of relapsers has a positive effect on both the relapser and the other members of the house. As painful as an expulsion may be, it is a judgment by one's peers. The peers themselves who make the difficult decision seem to have their own sobriety reinforced.

The democratic nature of the house organization, the written system of operations, the election of officers, the written traditions and the grant of the charter all work together to promote recovery through the exercise of responsibility. As the members enjoy their recovery and realize the role that the self-run, self-supported recovery house has played in recovery, they help replicate the experience for others by starting another recovery house.

Individual houses organize themselves into groups [chapters] through which houses help each other to stay on track help assurance of quality operation by each house. In local areas the officers of each house meet at one of the member houses as a chapter each month. Chapters provide a forum for individual houses at the local level to share their strength, experience and hopes. In doing so they provide an effective means for keeping

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The Concept

The concept underlying self-run, self-supported recovery houses is the same as the one underlying Alcoholics Anonymous and Narcotics Anonymous – addicted individuals can help themselves by helping each other abstain from alcohol and drug use one day at a time for a long enough time to permit a new set of values to be substituted for the values of a lifestyle in which alcohol and drugs were used.

Dr. George E. Vaillant, in his book *The Natural History of Alcoholism*, states the obvious goal in the treatment of alcoholism [or drug addiction] when he states that, "The treatment of alcoholism should be directed toward altering an ingrained habit of maladaptive use of alcohol. ..." He goes on to spell out the four components of treatment that can achieve that goal:

(1) offering the patient a nonchemical substitute dependency for alcohol,

(2) reminding him ritually that even one drink can lead to pain and relapse,

(3) repairing the social and medical damage that he has experienced, and

(4) restoring self-esteem.[12]

Vaillant also points out that providing all four components at once is not easy.

Disulfiram (Antabuse) and similar compounds that produce illness if alcohol is ingested are reminders not to drink, but they take away a cherished addiction without providing anything in return: they provide the second component but ignore the first. Prolonged hospitalization provides the first three components but ignores the fourth and eventually the first. Hospital patienthood destroys self-esteem, and when hospitalization ceases the patient loses his substitute dependency. Tranquilizing drugs provide the first component but ignore the other three. For example, providing the anxious alcoholic with tranquilizers will give temporary relief of anxiety but may also facilitate the chain of conditioned responses that lead to picking up a drink at the next point of crisis. Over the long term, providing alcoholics with

pills only reinforces their illusion that relief of distress is pharmacological, not human.[13]

Vaillant does note that "self-help groups, of which Alcoholics Anonymous is one model, offer the simplest way of providing the alcoholic with all four components referred to above."[14] So too with Oxford House. It provides the benefits of prolonged hospitalization without the destruction of self-esteem. In fact, self-esteem is restored through the exercise of responsibility, helping others, resocialization, and constructive pride in maintaining an alcohol and drug-free living environment without dependency upon any outside authority or helper.

The concept – which seems never before to have been formalized on a democratically, self-run, and self-supported basis – is not new.

The basic idea that one addict is a primary source of help for another has long been known and was, in fact, basic to the history of AA. Robert Thomsen, in his biography of Bill Wilson, one of the co-founders of AA, describes the first meeting between Bill and Dr. Bob Smith as follows:

They talked on for hours. Soon Dr. Bob had opened up and was speaking as frankly, as unashamedly, as Bill. When they parted after eleven o'clock, they knew something had radically changed in them both. Although they could not be specific about what it was, a spark that was to light future fires had been struck.

For Bill it had been a unique, wondrous and totally engrossing experience. After admitting his deep need to share his problems with another drunk, he had not felt the slightest desire to preach or in any way judge the other man. With a sense of incredible freedom, relief and, yes, joy, he'd felt the two of them growing closer, their talk becoming a mutual thing, and he knew they had both felt this. Two drunks had found a new, mysterious and loving kind of communication, a new language of the heart. The link he had been seeking was located that night in Henrietta's library.[15]

They had dinner together the next evening and after a few days Bill moved in with Anne and Dr. Bob in their

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[12] George E. Vaillant, *The Natural History of Alcoholism,* Harvard University Press, Cambridge, 1983, p. 300.

[13] Id. 301.

[14] Id. 301.

[15] Henrietta Siberling of Akron, Ohio, who had been a member of an Oxford Group in Akron and responsible for getting Bill Wilson and Dr. Bob Smith together.

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11

home on Ardmore Avenue. He sent word to his proxy associates in New York that he'd be staying on in Akron, and, to his surprise, they wired some cash to him and suggested he might hire a lawyer and investigate the possibility of fraud at the stockholders meeting.[16] Thus he was no longer penniless, but his primary interest now was his work with Dr. Bob and the uncanny parallels they were discovering in their stories.

Both were Vermonters, Bob the son of a judge in St. Johnsbury. Both had taken up drinking at an early age, Bob while still a student at Dartmouth, even before medical school, and from the beginning they had both gone at booze heavily. Each, except for the hells created by drinking, had had a happy marriage and each admitted he must have been born with an iron constitution to withstand the beating he had given himself. And each had wrecked a career that had started out brilliantly.

These were the external parallels. The interior ones were equally striking, the guilt and remorse, the defenses they'd constructed, the passionate desires and the futile efforts to understand and be in control, and finally, after seeking so many other solutions, they had both wound up trying to give shape and meaning to their lives by adhering to the excruciatingly high standards of the Oxford Group.[17]

About ten days after Bill Wilson had moved in to live with Dr. Bob and Anne, Dr. Bob went to a medical meeting in Atlantic City and relapsed into drinking alcohol. Five days later, Dr. Bob returned to Akron drunk. His wife Anne and Bill Wilson sobered him up over a three-day period. Dr. Bob took his last drink on June 10, 1935. Bill Wilson stayed in Akron living in Dr. Bob's house on Ardmore Avenue for four months and in many ways it was the first Oxford House – two former drunks living in an alcohol and drug-free environment focused upon helping each other and others recover from addiction to alcohol.

Bill Wilson and Dr. Bob Smith went on to practice and refine the principles they learned in the first few months of living together in the alcohol and drug-free environment of the house on Ardmore Avenue in Akron. Their legacy to individuals now struggling to recover from alcoholism and drug addiction –AA– is present in every town throughout the United States and most of the world. It is that legacy that provides the underpinning for the self-run, self-supported recovery house as an alcohol and drug-free, self-run and self-supported living environment.

The concept of a self-run, self-supported recovery house for individuals recovering from addiction is simple, but it requires individual initiative and acceptance by society for mass replication to become a reality. The sanction and the framework provided by the Anti-Drug Abuse Act of 1988 and the Fair Housing Act Amendments of 1988 create a climate, which encourages replication. The experience and expertise of Oxford House can provide the motivation and technical know-how to help make mass replication of recovery houses a reality throughout the State.

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State Recovery House Revolving Loan Programs

The State Recovery House Loan Programs can serve as the catalyst needed to get individual recovery houses started throughout the State.[18] The first month's rent and security deposit is usually available to get a house started. This section of the paper explains how to effectively use this simple program to begin the process of affording all individuals recovering from addiction with the support they need to get the long-term support they need to use 12-step programs to develop a lifestyle permanently free of addiction to alcohol and drugs.

Some states have contracts or grant arrangements with Oxford House World Services. In those cases the process for finding a suitable house, recruiting recovering individuals to live in the house and to teach those individuals the right way to organize and operate an Oxford House is easier than where there is no Oxford House presence. In all states, Oxford House World Services is prepared to help anyone to learn how to start and operate Oxford Houses.

Technical Assistance

The telephone number for getting assistance from Oxford House World Services is **1-301-587-2916**. Specific questions and general information about how to help make the State Recovery Housing Program a success should be directed to them. Oxford House has people who have experience starting and running self-

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[16] Bill Wilson had been in Akron to work on the acquisition of a company in which there was a stockholders proxy fight.

[17] Robert Thomsen, *Bill W.*, Harper & Row, New York 1975, pp 238-239.

[18] 42 USC 300x-25 is the section of the U.S. Code that is the provision of law permitting states to use block grant money to establish a recovery home revolving loan fund. Some states have such funds; others do not. See our website: www.oxfordhouse.org for a discussion of start-up loans and contact information for each state alcohol and drug agency. Click "Links/State Gov".

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12

run, self-supported recovery houses and will share that experience with citizens wanting to make the State program a success or to get a recovery home start-up revolving loan fund established. Oxford House World Services also has experienced individuals available to states though modest grants or contracts. The on-site outreach workers can provide the expertise to enable local recovering individuals to establish clusters or statewide networks of self-run, self-supported Oxford Houses to encourage treatment providers, drug courts and re-entry from prison programs to provide a realistic opportunity for recovering individuals to become comfortable enough in sobriety to avoid relapse. See DePaul University NIAAA and NIDA research results showing Oxford House is the best practice to assure recovery without relapse at the Oxford House website: www.oxfordhouse.org.

Loan Approval

Once a suitable house has been lined up Oxford House can help individuals apply for a start-up loan where states have contracted with Oxford House World Services to provide such assistance.[19] Start-up loans may be granted within the following guidelines:

• The maximum amount of the loan is $4,000.

• Proceeds from the loan must be used for specific items, i.e. first month's rent, security deposit, beds and so on. (Oxford House will discuss with you the exact permissible uses of the loan.)

• The loan must be repaid within two years in twenty-four equal monthly installments. (It may be repaid sooner in order to put money back in the Revolving Fund so that other groups in the State can start more houses.)

• As a general rule four or more recovering individuals must apply for the loan (In some cases Oxford House, Inc. or participating state agencies will approve loans that meet all other conditions even though the number of loan applicants is less than four provided that once operational the house will provide room for at least six residents.

• In all cases the number of recovering individuals living in a group must be six or more and preference will be given to groups of between six and fifteen. An Oxford House CHARTER can be given only to groups of SIX or more recovering individuals. Fewer residents are not able to effectively function within the discipline democratic system of operation. History has shown that the best number of residents in a group is eight to twelve.

• Oxford House will provide technical assistance for meeting all requirements. It will also be available to provide advice about renting the house, lining up recovering individuals to live in the house, opening the checking account for the new house, getting utilities on, and getting organized to operate democratically and on a self-support basis.

An appropriate loan application can be obtained by calling the State Alcohol and Drug Agency[20] or Oxford House National Headquarters at (301) 587-2916. Oxford House will send you a copy of the current application, or tell you where to get one.

Once a loan is approved it is made to the recovery house group – not particular individuals. Therefore, you must have a group ready to go when the loan is approved and establish a checking account in the group's name. The group will need a federal tax identification number. Oxford House can help you get one.

The group getting the loan will be given a coupon book with each coupon showing the amount due and the due date. The repayment must be made on time each month that a payment is due. Failure to make timely repayment will result in a penalty being assessed. There is no interest on the loan but each group should work hard to avoid penalties by making its payment on time. Returning money to the revolving loan fund becomes available to start more houses.

The loan application process is not difficult if the individuals wanting to start a recovery house contact Oxford House early in the process. Oxford House can help make the loan application process a simple one. Potential applicants should write or call Oxford House World Services Office for assistance. Businesses, foundations, local church groups, state or local governments should inquire about outreach and technical service by Oxford House World Services Office. On-site technical service can be provided to start new houses and to help keep existing houses on track. The cost per recovery bed is only a fraction of the cost of the traditional halfway house bed or incarceration – less than a dollar per day versus a cost of between $23 to $52 a day.

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[19] Experience has shown that on-site technical assistance within a state works best to establish Oxford Houses and to develop mutually supportive chapters and state associations to assure quality control – e.g. to keep houses on track once they are established.

[20] State agency telephone numbers are listed at website: www.oxfordhouse.org under "Links/State Gov".

Oxford House World Services• 1010 Wayne Avenue, Suite 300• Silver Spring • Maryland 20910
Telephone (301) 587-2916• Fax (301) 589-0302• Internet: www.oxfordhouse.org

13

Getting a CHARTER

Write or telephone (301-587-2916) Oxford House World Services about how to get a CHARTER for the new house. A conditional CHARTER will generally be granted within thirty days. The "conditional" CHARTER usually sets a specific time period for the new group to obtain a house and get organized. If it does not obtain a house or get organized during the conditional period it becomes void, but the group can reapply for the CHARTER. If a new house does get properly organized within the conditional period it is granted a regular permanent CHARTER.

It is important to obtain a CHARTER because it permits the new group to enjoy all the advantages of being part of the Oxford House network of recovery houses. As part of that network the new group is able to receive assistance to make sure that the new house works. Moreover, the new house is able to share the strength, experience and support of all other Oxford Houses. Together recovering individuals and recovery houses help each other help themselves.

There is no cost involved in getting a CHARTER from Oxford House and it contains only three conditions:

- **The recovery house must be operated on a democratic basis;**

- **The recovery house must be financially self-supported; and**

- **Individuals who use alcohol and drugs must be expelled.**

Compliance with the CHARTER assures that the recovery house, in fact, provides support for individuals to recover from addiction and begin productive lives unhampered by the ravages of addiction to alcohol and drugs. Oxford House, Inc. requires that a house demonstrate its understanding and application of the disciplined democratic system of operations before it is awarded a permanent charter.

Recovery without relapse is the theme and goal of every Oxford House. Each house also accepts the responsibility of expanding and strengthening the network of Oxford Houses so that all recovering individuals can achieve recovery without relapse.

This responsibility for affording a universal opportunity to recovering individuals for recovery without relapse is an outgrowth of the 1999 Oxford House World Convention. At that first convention Oxford Houses followed through on the Convention theme – "If Not Us, Who?." They accepted successful expansion as part of their responsibility and voted to contribute $50 a month per house to Oxford House World Services to improve both expansion and the ability of Oxford House, Inc. to provide technical services to help expand the national network of houses. In 2008 more than 250 Oxford Houses around the country voluntarily sent in $50 a month to help expand Oxford Houses for others.

The money provided by individual houses to the central Oxford House operation enabled the organization to expand into new territories. While Oxford Houses are now located in most states throughout the country, there are many areas still needing their first group of Oxford Houses. Thanks to the dedication and generosity of existing Oxford House residents and alumni modest funding is provided to pay trained outreach workers to help others establish to establish Oxford Houses.

❏❏❏

> YOU can help your State establish as many self-run, self-supported Oxford recovery houses as are needed to provide an opportunity for every recovering individual who wants a supportive, alcohol and drug-free place to live... TAKE ACTION TODAY!

❏❏❏

Oxford House, Inc. is the winner of the 2005 Harry V. McNeill Award for Effective Community Service American Psychological Association

A review of our web site: www.oxfordhouse.org will provide additional information about Oxford House availability and how to start a new Oxford House.

Oxford House World Services• 1010 Wayne Avenue, Suite 300• Silver Spring • Maryland 20910
Telephone (301) 587-2916• Fax (301) 589-0302• Internet: www.oxfordhouse.org

14

Good Houses in Good Neighborhoods

Oxford House-Aycock, at the left, was established in 2001 in Greensboro, North Carolina. It is home to eight recovering men who had been homeless during their active addiction. Since established, more than 175 recovering men have lived in the house. Projecting the DePaul University study sponsored by NIAAA, more than 80 percent of the residents in this house have become clean and sober and will stay that way.

Creating an Effective National Recovery Network One House at a Time

National Oxford House Resident Profile[1]

Number of Women's Houses:	330	No. of Women Residents:	2,505
Number of Houses For Men:	1,030	No. of Men Residents:	8,024
National Network of Houses:	1,360	Total Number of Residents:	10,529
Number of States with Houses:	41	Cities with Houses:	386
Cost Per Person Per Week:	$94.25	Rent Per Group Per Month	$1,380
Percent Veterans	18%	Average Age	36.4 yrs.
Residents Working 6/15/07:	92%	Average Monthly Earnings:	$1,440
Percent Addicted To Drugs or Drugs and Alcohol:	73%	Percent Addicted to Only Alcohol:	27%
Race --		Marital Status --	
White;	54%	Never Married	45%
Black;	42%	Separated	18%
Other	4%	Divorced	33%
		Married	4%
Prior Homelessness:	56%	Average Time Homeless:	6 Mos.
Prior Jail:	76%	Average Jail Time:	13 Mos.
Average AA or NA Meetings Per Week:	5.1	Percent Going To Counseling and AA or NA:	43%
Average Length of Sobriety of House Residents:	16.1 Mos.	Residents Expelled Because of Relapse:	19.4%
Average Length of Stay In An Oxford House:	10.1 Mos.	Average No. of Applicants For Each Vacant Bed:	9

Together We Can

Theme of 11th World Convention
Washington, DC

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[1] As of June 30, 2009 based on standard OHI survey and house reports – US Houses only.

Oxford House Highlights

- **10,756 Number of Oxford Recovery Beds**

- **1,365 Number of Oxford Houses as of July 2009**

- **41 Number of States having Oxford House**

- **383 Number of towns or cities having Oxford Houses**

- **$1,440 average monthly income of residents**

- **$98.25 average weekly share of expenses paid by Oxford residents**

- **53% of Oxford House residents had been homeless for an average of 6 months**

- **73% addicted to drugs in addition of alcohol**

- **76% had done jail time connected to their addiction**

- **16.1 months average length of sobriety**

- **132 New Houses started CY 2008**

- **45 for Women; 87 for Men**

- **Total *Added* Recovery Beds: 1,058; Men: 710; Women: 348**

Outreach Workers Provide Frontline Development Expertise

Task	Action of Outreach Worker
1. Finding a suitable house	➢ The outreach worker has been trained to recognize the characteristics of suitable house to rent. ➢ The outreach workers know how to execute a legal lease between the landlord and the group or entity that is made up of ever changing residents. ➢ The outreach worker is able to answer zoning questions – in a general way – and is backed up by the expertise of the central service office in Silver Spring.
2. Obtaining a charter from Oxford House Inc.	➢ Outreach worker helps newly recovering individuals to fill out the charter application form and submits it to Oxford House, Inc. to get a "conditional" charter that is valid for up to six months. ➢ Outreach worker helps the new group to fulfill the requirements of the "conditional" charter so that the group can be granted a "permanent" charter.
3. Obtaining an FEIN [federal tax identification number] from IRS to enable the group to establish a checking account in the name of the group.	➢ Since the mid-eighties every bank account needs either a social security number [in the case of an individual] or a FEIN [in the case of a group, association, partnership or corporation]. The outreach worker processes the paperwork to obtain a FEIN and helps the group to establish a checking account in the name of the individual Oxford House™. ➢ Establishes the two-signature checking account and teaches the residents how to manage house finances.
4. Recruiting initial residents for the new house.	➢ Working with treatment providers and the recovery community to explain the value of Oxford House living to get referrals. ➢ Convincing a newly recovering individual that living in an Oxford House™ provides the time, peer support and living environment to gain comfortable sobriety without relapse.
5. Teaching residents in a newly established Oxford House the standard system of operations needed to effectively operate the house.	➢ Teaching new residents the need for a weekly business meeting and the procedures to follow. ➢ Helping the residents elect the five essential officers needed to operate each house and teaching each person the duties of each office holder. ➢ Helping the residents get the household furnishing needed for the house [from beds to brooms]. ➢ Story telling while living in the house to infuse the group with the belief and culture of Oxford House™ and its role in promoting recovery without relapse.
6. Instilling a dedication among house residents to reach out to other recovering individuals to share the benefits of Oxford House living.	➢ Teaching residents how to make presentations to providers to get new recruits. ➢ Promotion of expansion within an area to meet the need of newly recovering individuals and to organize a mutually supportive chapter. ➢ Building a habit of attending 12-step meetings and the encouragement of frequent contact between residents and Oxford House World Services to resolve house issues, promote expansion and to become an active participant in on-going expansion.

The chart above diagrams the tasks that Oxford House outreach workers undertake to develop statewide networks of houses. Once established one outreach worker is able to keep up to thirty or forty houses on track because of the system of organization – houses, Chapters and State Associations – and training workshops.

Using the Oxford House Website

The Oxford House website is an important tool for the recovery community – treatment providers, drug courts, churches, re-entry programs, AA/NA/CA members – individual Oxford Houses and the general public. It reflects the principle of transparency by showing everything that anyone wants to know about Oxford House from financial reporting and basic information about house locations and vacancies to leading edge research and legal precedents. Beginning last June, every Oxford House Chapter [mutually-supportive groups of individual Oxford Houses] began the process of educating the officers of each house to log onto the website immediately in order to accurately report vacancies and to keep data about their individual house up-to-date. Accurate data about each house – by having the Secretary for each house update the web immediately when there is a change in vacancies, house address or telephone number – is a goal that all Oxford Houses want to achieve by the end of 2008.

Quick links on the website include up-to-date house location and vacancies in three places: click "Vacancies" on home page for a pop up map showing location and current vacancy status; click "Directory" under heading "Houses" to get a listing by state of individual house location and vacancy data, or click "Vacancy Search" under houses.

Get an overview of Oxford House by viewing the 10-minute segment of the May 5, 1991 CBS "60 Minutes" program about Oxford House. Also download PDF documents about Oxford House by clicking "Publications/General" and scroll down to "Oxford House – The Model" or look at the 2007 Annual Report by clicking "About/Us/Finances" and scrolling down to the "2007 Annual Report." It presents a good description of how Oxford House World Services is able to help states and other develop and maintain strong, effective Oxford Houses, Chapters and State Associations. "About Us" also recounts the history of the Oxford House Movement.

House members and the public can download the basic manuals that set forth the concept and disciplined operating practices that make the network of nearly 1,300 Oxford House work by clicking "Manuals" and downloading the complete text. The basic manual is in either English or Spanish.

Under "Publications" three important categories are available – General, Legal or Evaluations. From the "General" category house residents and others can get basic forms, newsletters and manuals. Providers, researchers or the public will find the "Fifteen State Profile" showing data about who lives in Oxford Houses. Under "Legal" law review articles and lead cases can be downloaded showing the civil rights afforded Oxford House residents under the Federal Fair Housing Act [FHA] and Americans with Disabilities Act [ADA]. Under "Evaluations" both the independent selected studies of DePaul University in Chicago are available and as are selected state evaluations derived from internal research.

"Links" provides an easy access to separate websites maintain by various Oxford House State Associations, Treatment Providers throughout the country, key self-help program websites, and an up-to-date directory of state agencies dealing with substance abuse treatment and prevention.

Finally, there is a direct way to "Contact" Oxford House World Services with any question or issue of interest to residents or the public. All inquiries are responded to by World Services within a few hours.

Learn the many resources available from the Oxford House website and use them to join with the Oxford House family in its quest to provide every recovering individual with a realistic opportunity to live in an Oxford House to become comfortable enough in sobriety to avoid relapse – forever.

Oxford Houses: Support for Recovery without Relapse

Feature Articles - Treatment Strategies or Protocols

Written by J. Paul Molloy and William L. White, MA

Wednesday, 01 April 2009

Addiction professionals are painfully aware that addiction treatment is all too often followed by relapse, re-addiction and readmission to treatment. Of those individuals currently entering addiction treatment in the United States, 52 percent already have one or more prior admissions to specialty-sector addiction treatment, and 20 percent have three or more prior admissions (for those with opiates as a primary dependency, the figures are 74 percent and 42 percent respectively; OAS, 2007).

Of those discharged from addiction treatment, more than half will resume alcohol and/or drug use in the following 12 months, and 50 percent will be readmitted to addiction treatment within two to five years (For an extensive review of this data, see White, 2008). When clients, family members, referral sources, funding authorities and members of the larger community ask for an explanation of this cycle, they are often told that this pattern marks the very essence of a chronic, relapsing disorder. "Relapse is part of the disease" is prominently featured in the new litany of addiction treatment.

But a growing number of addiction professionals and recovery advocates are asking whether relapse is an inherent quality of addiction or the product of a design flaw in how addiction is treated and managed, or more specifically, treated and not managed. It has been suggested that relapse rates might decline precipitously if individuals who initiate recovery within the context of addiction treatment were afforded access to sustained monitoring, recovery support services and a post-treatment environment that is supportive of recovery maintenance.

For more than three decades, men and women seeking recovery have been involved in a living experiment that has tested this very proposition. This article will describe how Oxford Houses function as recovery support institutions, and review what scientific evaluations have concluded about the relapse and long-term recovery outcomes of Oxford House residents.

Oxford House history

Oxford Houses are self-run, self-supported recovery houses. Once voted in, residents can stay as long as necessary, as long as they do not drink or use drugs, pay their monthly share of expenses and expel any house member who uses drugs or alcohol. Started in 1975 by a group of men whose stay in a county-run halfway house was abruptly ended when the county decided to close the house, there are now more than 1,300 Oxford Houses providing recovery housing.

The first person voted into Oxford House was Jim Spellman. Like most of the other men in the first Oxford House, Jim attended a lot of recovery support meetings and was a popular speaker at open meetings. He would often tell a story — perhaps apocryphal — about Blue Cross-Blue Shield hiring one of the leading consulting firms to study the best solution for the alcoholism/drug addiction problem. He would describe all the surveys they conducted and the experts they consulted, and then he would announce the major finding of the study: "If you don't drink alcohol, you won't get drunk, and if you don't use drugs, you won't get high." Everyone hearing Jim's story would laugh, knowing the truth of the observation and the difficulty in achieving it. For Jim and tens of thousands of others who followed, the difficulty of becoming comfortable enough in sobriety to avoid relapse was overcome by living in an Oxford House.

In 1988, Congress recognized that Oxford Houses worked and included a section based on the Oxford House model in the Anti-Drug Abuse Act of 1988 (Section 2036 — Group Homes for Recovering Substance Abusers, now codified in the United States Code as 42 USC 300x-25). That law, along with a minimal amount of technical assistance provided by trained outreach workers, served as a catalyst for the expansion of Oxford Houses throughout the country. The network of Oxford Houses has grown from a handful of houses in the Washington, D.C., area in 1988, to more than 1,300 houses with a collective daily capacity of 9,922 recovering people across 44 states. As of November 2008, 314 of the homes are for women, and 54 are designed specifically for women and children.

The Oxford Houses are residential single-family houses segregated by gender. They are located in stable neighborhoods. In most cases, trained outreach workers employed by Oxford House, Inc. — the national nonprofit umbrella organization — help establish new houses and train the initial residents to use the time-tested system of disciplined democratic operation and self-support. These trained outreach workers also organize local clusters of houses into mutually supportive chapters and statewide associations.

Growth of the network of Oxford Houses over the last decade shows that clusters of Oxford Houses can be replicated readily at minimal cost. Since all Oxford Houses are rented, there is no need for substantial capital investment. Experience has shown that mass expansion requires utilization of trained residents and alumni to effectively establish clusters of houses in new geographic areas. A single outreach worker can open between three to five houses per year.

The most effective model for developing local clusters or statewide networks of Oxford Houses includes the involvement of the state addiction treatment authority in providing funding to pay outreach workers and to administer the recovery home revolving loan fund established pursuant to the provisions of the federal Anti-Drug Abuse Act [42 USC 300x-25]. Most of the existing 1,300 Oxford Houses have received and repaid $4,000 in start-up loans. These loans enable a new Oxford House group to pay a landlord the first month's rent and security deposit. These loans are then repaid over 24 months at the rate of $170 a month.

How Oxford Houses operate

The success of Oxford House is rooted in its simplicity and in the infrastructure that supports it. Oxford Houses provide a place for the recovering individual to heal and transform his or her life from one of destructive addiction to comfortable, productive, long-term sobriety. At the same time, Oxford Houses provide residents considerably more personal liberties (e.g., ability to bring belongings, personal choice of daily schedule, freedom to leave for weekends and "private time" with guests in their rooms) than would be found in therapeutic communities or traditional halfway houses (Ferrari, Jason, Davis et al., 2004).

First, a group of recovering individuals must get a charter from Oxford House, Inc. to establish and operate an Oxford House. There is no charge for the charter. Second, the house must be for either males or females — there are no co-ed houses. Third, the group home must have at least six beds. Fourth, the group must agree to the following three conditions:

1. The house must be democratically self-run.
2. The house must be financially self-supporting.
3. The group must immediately expel any resident who returns to using alcohol and/or drugs.

The umbrella organization, Oxford House, Inc., has sole authority to issue charters and initially issues a charter limited to six months. During that period of time, the group must take steps to show that it understands how to operate as an Oxford House by following the operational procedures in the Oxford House Manual© and submitting proof of performance to Oxford House World Services. The proof includes two letters of recommendation from active Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) members. Then it is given a permanent charter and has equal membership in the network of all Oxford Houses. Oxford House Inc. thanks the recommending AA/NA members and asks them to contact World Services if they ever believe that the house has failed to expel a resident who has relapsed. This is but one part of the quality control mechanisms the central Oxford House organization uses to keep houses on track.

The operation of each Oxford House is based upon a standard system of operation, including: weekly house business meetings; election of five officers; and prompt payment of all household bills. Each officer has specific duties within the house and each resident is limited to service of six months in any one office. The forms and procedures are the same for each house. Among other duties, houses post their vacancies on the national website: www.oxfordhouse.org.

Prospective Oxford House residents are selected for membership following completion of an application; participation in an interview with existing house members; and approval by 80 percent of the residents living in the house. In many ways, getting into an Oxford House is similar to getting accepted as a member of a country club or some other exclusive organization. What this process says to the accepted newcomer is that his or her peers want him or her as a member of their family. Being accepted into an Oxford House — in and of itself — is often the new member's first success along the recovery path.

Once accepted as a member of an Oxford House, the recovering individual has an equal voice in the running of the house, including a vote at the regular weekly business meetings. In these meetings, which are run by disciplined parliamentary procedures, everyone in the house reviews the financial status of the house; discusses and votes on key issues facing the house; and participates in solving problems of daily living that arise

within the house. The predictability of everyday events in the house adds to the newcomer's transition from the turbulence of addiction to the stability of sobriety. The recovery process within the Oxford Houses has been aptly conceptualized as a transition from destructive drug dependencies to a positive dependence on recovering peers (Nealon-Woods, Ferrari & Jason, 1995).

Nationally, the average number of residents per house is 8.2. The best size house provides room for 8 to12 residents, with most bedrooms accommodating two individuals to help them avoid the isolation that can lead to relapse. Residents pay an average equal share of household expenses (rent to the landlord, loan repayment, utilities and house staples) of about $95 a week (range from $75 per week to $150 per week). Residents can live in an Oxford House for as long as they stay clean and sober and pay their equal share of expenses. There are no limits on length of residence in an Oxford House. While the average length of stay is about one year, some residents live in an Oxford House for many years. This open-ended residency is possible because when demand exceeds the supply of beds, the group simply rents another house to establish another Oxford House.

Oxford House evaluation studies

When they started the first house, the original group of residents had to prove that 'the inmates could run the asylum.' A full-time staff of three ran the traditional halfway house in which they had lived. The remaining houses not closed by the county also relied on a full-time staff who proclaimed that the Oxford House would soon become nothing but a flophouse for drunks and drug addicts. This voicing of doubt by "the Establishment" spurred the new Oxford House residents into a "We'll show you" attitude. As part of that attitude, the very first Oxford House invited observation by others, made its address public, and kept all records public with regard to its successes and failures. Evaluation was infused within the very bones of the Oxford House culture.

When Bill Spillaine, PhD, started teaching at Catholic University, after retiring from NIDA, he asked to review the outcome records of individuals who had lived in an Oxford House from its beginning, in 1975, through 1987. Everyone living in all 13 Oxford Houses at that time agreed to cooperate with him. Dr. Spillaine tracked down more than 1,200 former Oxford House residents to learn how many had stayed clean and sober. When he came to the leaders of Oxford House and reported that 80 percent had stayed clean and sober without relapse, the leaders asked, "What are we doing wrong to have 20 percent of our residents relapse?" Dr. Spillaine explained that the normal rate of sobriety without relapse was less than 20 percent and that the Oxford House resident outcome was exceptionally good.

Beginning in 1990, Oxford House residents entered into a sustained collaboration with DePaul University psychologists to evaluate all aspects of the Oxford House network. Since then, Leonard Jason and his colleagues have conducted dozens of studies that tracked residents and alumni and compared outcomes of Oxford House residents and control groups of recovering individuals not living in Oxford Houses. (Many of the DePaul Studies are available at www.oxfordhouse.org.) For the most part, Spillaine's early findings have held up, showing that sobriety without relapse is the norm for Oxford House residents.

More detailed findings from the studies conducted by Dr. Jason Leonard and his colleagues at DePaul University's Center for Community Research include the following (excerpted from White, in press):

> • Oxford House residents present a profile of gender and ethnic diversity, high alcohol and drug problem severity and rates of co-occurring psychiatric disorders comparable to addiction treatment populations (Alvarez, Adebanjo, Davidson, et

al, 2006; Ferrari, Curtin-Davis, Dvorchak, & Jason, 1997; Jason, Davis, & Ferrari, 2007; Jason, Davis, Ferrari, & Bishop, 2001).

• AA is the dominant framework of recovery for Oxford House residents (76 percent), but other pathways of recovery are respected (e.g., 17 percent report individual psychotherapy as their primary recovery support medium; Nealon-Woods, Ferrari, & Jason, 1995).

• At two-year follow-up, residents who stayed in Oxford House for a minimum of six months following residential addiction treatment have superior recovery outcomes compared to those placed in traditional aftercare (15.6 percent rate of reported substance use compared to 64.8 percent). Oxford House residents also achieve higher rates of employment, higher incomes and a lower rate of arrest than do those in traditional aftercare (Jason, Olson, Ferrari et al., 2007; Jason, Olson, Ferrari, & Lo Sasso, 2006).

• The prospects of long-term recovery rise with length of stay in an Oxford House (Jason, Davis, & Ferrari, 2007).

• At extended follow-up, 69 percent of residents remain in residence or have left the house as planned in good standing (Majer, Jason, Ferrari, & North, 2002).

• Oxford Houses for women that accommodate children have a positive effect on both the mothers and on other women in the house (d'Arlach et al., 2006).

• The communal environment of the Oxford House has been found to be particularly congruent to African American men and women and members of other groups whose historical experience has created a distrust of authority figures (d'Arlach et al., 2006; Ferrari, Curtin-Davis, Dvorchak, & Jason, 1997).

• Community attitudes toward Oxford House are most positive among neighbors who live closest to the Oxford House (Jason, Roberts, & Olson, 2005).

Subsequent studies of Oxford House confirm the primary finding of the first study: the vast majority of Oxford House residents stay clean and sober without relapse.

A closing reflection

Congress has just mandated that health insurance companies must cover mental illness and substance abuse with the same standards they use to pay for other illnesses (The Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008 (PL 107- 1434)). Passage of this legislation is, in some ways, a step "back to the future" since many health insurance companies in the 1970s and early 1980s covered addiction treatment as they covered payment for other illnesses. Such reimbursement was restricted or eliminated in the late 1980s and early 1990s because of treatment industry excesses (e.g., inappropriate admissions, excessive lengths of stay) and growing alarm about patterns of chronic relapse and treatment recycling. It is important in the face of this new legislation that the treatment field avoids replication of this earlier history. The use of Oxford Houses and other non-clinical, peer-based recovery support services can enhance the likelihood of recovery without relapse and can help prevent the future loss of the parity that has just been legislatively restored.

The website www.oxfordhouse.org contains material showing where Oxford Houses are located; studies showing how local development can take place; research reports verifying best practice for assuring recovery without relapse; and a real-time inventory of vacancies in existing houses. Visit this site to explore how this growing network of Oxford Houses may be of use to your clients who could benefit from such rich recovery support.

Community - Based Homes Seem to Help Addicts

By THE ASSOCIATED PRESS
Filed at 12:41 p.m. ET; August 18, 2005
WASHINGTON (AP) -- Self-supporting group homes have high success rates in helping individuals recover from alcoholism and drug addiction, researchers from DePaul University reported Thursday. A pair of studies being presented at the annual meeting of the American Psychological Association found success rates of 65 percent to 87 percent for the homes.

The benefits of communal living include a lower relapse rate and help keep individuals as productive members of society, reported lead author Leonard A. Jason. In addition, he noted, the houses operate at little or no cost to the taxpayer. Jason and co-authors studied residents of Oxford House, a network of group homes across the country serving recovering addicts. Each resident pays a share of the costs and can be evicted if detected using drugs or alcohol. One study compared 75 people who went into anOxford House after detoxification with 75 others who went to halfway houses or returned to the community. After two years 65 percent of the Oxford House residents were still clean and sober compared to 31 percent of the others, Jason said.

The second study began with a national sample of 897 Oxford House residents. After a year 607 remained in the study and, of those, 87 percent reported they were still off alcohol and drugs. Those who dropped out of the study had previously reported higher rates of drug and alcohol use than those who stayed in, the report noted. It said those who dropped out were younger and had spent less time in the home than those who remained.

The program seemed to work equally well for men and women, the researchers said, and there were no significant differences among racial groups in the program. The Oxford House program was founded 30 years ago in Montgomery County, Md., and currently has 1,123 houses across the country and in Canada and Australia. While some states have loan programs to help get houses started, each house is otherwise self-supporting and is governed by its own residents.

In February 2006, the researches at De Paul University took the time to publish *Creating Communities for Addiction Recovery – the Oxford House Model*. It includes thirteen separate research papers growing out of the data about Oxford House accumulated over a dozen years. While it only scratches the surface of their findings, it is a quality endorsement of Oxford House that focuses on the many facets of recovery enhanced by Oxford House living.

Creating Communities For Addiction Recovery

The Oxford House Model

Edited by Leonard A. Jason, PhD
Professor and Director, Center for Community Research, DePaul University, Chicago, Illinois
The Haworth Press, Inc.
www.haworthpress.com

Reviews:

Keith Humphreys, PhD, Associate Professor of Psychiatry, Stanford University wrote the following about the book:

This informative book is at once a systematic evaluation of an important intervention for addiction and a vivid illustration of the value of strengths-based community psychology research. Along the way, the authors show how the process of community research and the amount of knowledge it uncovers are enhanced by a respectful, dynamic relationship between academic scientists and community-based organizations.

Greg Meissen, PhD, Director and Professor of Psychology, Self-Help Network: Center for Community Support and Research, Wichita State University wrote the following about the book:

An important book that will give communities and states greater confidence in supporting the creation of more Oxford Houses, which are critically needed especially now when there are fewer long-term alternatives for those with serious addictions. It is important that the larger addiction community and gatekeepers learn about Oxford Houses as they provide a critical element for those who are working to maintain their sobriety.
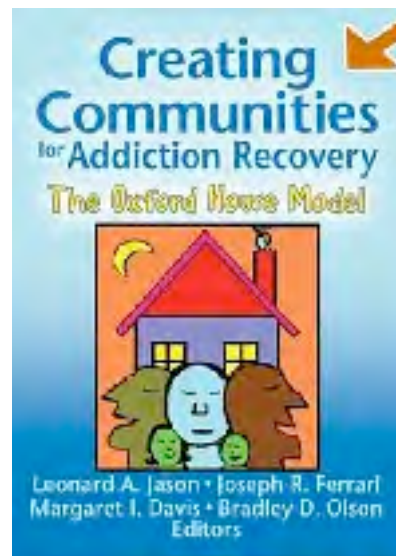
Oxford House™

1975-2010

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Oxford House Recovery Homes: Characteristics and Effectiveness

Leonard A. Jason and **Joseph R. Ferrari**
DePaul University

Abstract

One of the largest examples of a community-based, mutual-help residential community for high risk substance abuse individuals is *Oxford House*. In the U.S., over 9,800 people live in these self-run dwellings where they obtain jobs, pay utility bills, and learn to be responsible citizens. Beginning with one single rented residence in the mid 1970s, Oxford Houses now number over 1,300. These rented homes are helping to deal with drug addiction and community re-entry by providing stable housing without any limits on length of stay, a network of job opportunities, and support for abstinence. An exploration of the research on these unique settings highlights the strengths of such a community-based approach to addressing addiction. New roles for psychologists in working with these types of support systems are identified.

Keywords

Substance abuse; Recovery homes; Oxford House; ex-offender

After treatment for substance abuse, whether by prison, hospital-based treatment programs, or therapeutic communities, many patients return to former high-risk environments or stressful family situations. Returning to these settings without a network of people to support abstinence increases chances of relapse (Jason, Olson & Foli, 2008). As a consequence, alcohol and substance use recidivism following treatment is high for both men and women (Montgomery et al., 1993). Alternative approaches need to be explored, such as abstinence-specific social support settings (Vaillant, 2003). Self-governed settings may offer several benefits as they require minimal costs because residents pay for their own expenses (including housing and food). Recovering substance abusers living in these types of settings may develop a strong sense of bonding with similar others who share common abstinence goals. Receiving abstinence support, guidance, and information from recovery home members committed to the goal of long-term sobriety and abstinence may reduce the probability of a relapse (Jason, Ferrari, Davis & Olson, 2006). This experience might provide residents with peers who model effective coping skills, be resources for information on how to maintain abstinence, and act as advocates for sobriety.

Oxford Houses are single-sex adult dwellings, yet some allow residents to live with minor children. Individual members are expected to pay monthly rent and assist with chores. They are one of the largest self-help residential programs in the US. Unlike other aftercare residential programs, such as halfway houses, Oxford House has no prescribed length of stay for residents and there is no professional staff. Each House operates democratically with majority rule regarding most policies, and an 80% majority for accepting membership (Oxford House Manual, 2006). Residents must follow three simple rules: pay rent and contribute to the maintenance of the home, abstain from using alcohol and other drugs, and avoid disruptive behavior. Violation of the above rules results in eviction from the House (Oxford House Manual).

As of 2008, there were 321 women's Oxford Houses with 2,337 women, and 982 men's Oxford Houses with 7,487 men, for a total of 1,303 houses serving 9,824 people (Oxford House, 2008). There were Oxford Houses in 42 states and 383 cities in the US. Of the residents, 18% were veterans, and 91% were working with average monthly earnings of $1,480. Most residents had been addicted to drugs or drugs and alcohol (73%) whereas 27% had been addicted to only alcohol. Regarding race, 54% were White, 42% were Black, and 4% were other. Regarding marital status, 45% had been never married, 18% were separated, 33% were divorced, and only 4% were married. Fifty-three percent of residents reported prior homelessness for an average time of 6 months. In addition, 76% had been in for an average of 13 months. The average length of stay in an Oxford House was 10.1 months. The average cost per person per week was $98.75.

There appear to be considerable standardization of locations of Oxford Houses as well as what occurs in these settings (Ferrari, Groh & Jason, 2009). Ferrari, Jason, Sasser et al. (2006) studied 55 Oxford Houses across three diverse regions of the U.S and found that regardless of geographic location, Oxford Houses were rather similar in size and amenities that were available to residents (e.g. room air-conditioners, a utility room for laundry, a communal lounge for televisions, comfortable furniture in communal living areas. Observers (with high inter-rater reliability) noted that public transportation was available near the houses, and the streets and neighborhoods were clean and well-lit. These results, in fact, were replicated in Australian Oxford Houses (Ferrari, Jason, Blake et al., 2006).

Jason et al. (2003) used interviews and observations to better understand governance issues in the Oxford Houses. They found that residents utilized a number of strategies to confront behavioral issues, including imposing fines for not completing house duties, discussing interpersonal conflicts and behaviors such as isolation at business meetings, and developing behavioral contracts. Houses also implemented rewarding events for achieving goals. The Oxford House model of treatment for substance abuse issues is an intriguing concept based on self-governance and mutual support. The self-governing policies described above help create and nurture abstinence-specific social support networks. In the absence of professional staff, residents are forced to develop rules and policies, learn to self-govern, and assume positions of leadership within their houses. The democratic feature of the Oxford House program differentiates it from other types of residential care settings and recovery homes, where rules and sanctions for infractions may exist, but with less explicit efforts to encourage a supportive milieu

Limited research, however, is available regarding how Oxford House settings compare to other treatments. Using cross sectional data, Ferrari, Jason, Davis, Olson, and Alvarez (2004) compared the operational policies of 55 Oxford Houses to those of 14 Therapeutic Communities (TCs). Neither type of facility permitted self-injurious behaviors (e.g., physical self-harm or misuse of medication) or destructive acts (e.g., destroying site property or others' possessions). Oxford Houses, however, were significantly more liberal in permitting residents personal liberties compared to the TC facilities. For example, Oxford Houses permitted greater

flexibility in terms of residents' smoking in their rooms, sleeping late in the morning or staying out late at night, going away for a weekend, and having "private time" in their locked room with guests. Oxford Houses also were more likely than TCs to allow residents to have personal possessions (e.g., pictures, furniture) within the dwelling (Ferrari, Jason, Sasser et al., 2006).

Unfortunately, there have not been any outcome studies comparing TCs with Oxford Houses, although the first author currently has a NIDA funded study that is exploring this issue. There is considerable evidence for the effectiveness of TCs (DeLeon, & Rosenthal, 1989). Substantial reductions in recidivism rates have been found when in-prison Therapeutic Communities (TCs) are combined with community transition programs (Hiller, Knight, & Simpson, 1999; Wexler et al., 1996). As an example, Inciardi et al. (2004) found that at a five year follow-up, those individuals who participated in a combined TC and work release program had significantly less drug use and were significantly less likely to be re-incarcerated compared to those individuals in just the TC program or a no-treatment control group. Unfortunately, these TC programs often create a financial burden on society, and are not available to all that need them. Also, therapeutic community residents may stay only for a limited time before many return to former high-risk environments or stressful family situations (Goldsmith, 1992).

Limited research is also available comparing Oxford Houses versus more traditional recovery homes, which also tend to have supervising staff and less democratic self-governing principles. Harvey (2009) recently found that Oxford House residents had higher scores on social climate scales Involvement, Support, and Practical Orientation, Spontaneity, Autonomy, Order and Organization, and Program Clarity measures compared to a traditional recovery home. This study did not provide outcome data regarding residents' experiences living in these recovery communities. Few methodologically sound studies have emerged in the area of traditional recovery homes. In one of the few recovery home longitudinal studies, Polcin (2006) found that 51% of recovery home residents were abstinent from drugs and alcohol at a six-month follow-up. Regrettably, there are few studies reporting differential outcome data contrasting recovery home and therapeutic community residential treatments for substance abuse. In part, this is due to the fact that it is hard to provide systemic long-term outcome data on these hard to reach, highly recidivist populations.

The present article addresses the primary outcome studies conducted on one form of recovery home called Oxford House. We also examine whether settings such as Oxford Houses have an impact on their greater community. Finally, the implications for how clinicians might work with these types of community support settings will be reviewed.

Main Outcome Studies

Our NIAAA-Study

In a National Institute of Alcohol Abuse and Alcoholism (NIAAA) supported study, we successfully recruited 150 individuals who completed treatment at alcohol and drug abuse facilities in the Chicago metropolitan area. Over half of the individuals who participated in this study were women. Half the participants were randomly assigned to live in an Oxford House, while the other half received community-based aftercare services (Usual Care). We tracked over 89% of the Oxford House and 86% of the Usual Care participants throughout two years of the study. Results from this randomized study were encouraging, indicating significantly more successful outcomes including reduced recidivism for Oxford House than Usual Care participants 24 months after discharge from residential treatment (see Jason, Olson, Ferrari, & LoSasso, 2006).

Positive outcomes also emerged in terms of substance use (31.3% of participants assigned to the Oxford House condition reported substance use at 24 months compared to 64.8% of Usual

Care participants), employment (76.1% of Oxford House participants versus 48.6% of Usual Care participants reported being employed at the 24 month assessment) and days engaged in illegal activities during the 30 days prior to the final assessment ($M = 0.9$, $SD = 4.43$ for Oxford House; $M = 1.8$, $SD = 6.12$ for Usual Care participants). In this study of 150 participants, 87% of the female participants had children, but 50% of these women reported having lost custody of their children due to their addictions. Two years after entering Oxford House, 30.4% of all the women assigned to the Oxford House condition had regained custody of their children while only 2% (1 woman) had lost custody. On the other hand, in the Usual Care condition, only 12.8% of all the women regained custody of their children, while 4% (2 women) lost custody.

In this same study, we examined the combined effects of 12-step involvement and Oxford House residence on abstinence over a 24-month period (Groh, Jason & Ferrari, 2009). Among individuals with high 12-step involvement, the addition of Oxford House residence significantly increased the rates of abstinence (87.5% vs. 52.9%). Results suggested that the joint effectiveness of these mutual-help programs may promote abstinence and extended our previous research indicating that OH residents frequently engage in 12-step program use (Nealon-Woods, Ferrari, & Jason, 1997).

Economic data also were supportive for participants in the Oxford House condition over the course of the two-year study. Oxford House participants earned roughly $550 more per month than participants in the usual care group. Annualizing this difference for the entire Oxford House sample corresponds to approximately $494,000 in additional benefits to those in the Oxford House condition. The lower rate of incarceration (3% versus 9%) in the study among Oxford House versus usual care participants corresponded to annualized savings for the Oxford House sample of roughly $119,000. Together, the productivity and incarceration benefits yield an estimated $613,000 in savings accruing to the Oxford House participants.

In 2007, the Oxford House organization received about $1.6 million in grants from state and local governments to pay outreach workers to develop and maintain networks of individual Oxford Houses in nine States and the District of Columbia. Only 6% of these costs were for general and administrative costs of Oxford House, Inc. During 2007, the inhabitants of Oxford Houses expended approximately $47,814,156 to pay the operational expenses of the houses. If the Oxford Houses had been traditional, fully staffed halfway houses, the cost to taxpayers would have been $224,388,000 (Oxford House Inc., 2007). In the current cost-conscious environment by local, state, and federal governments, Oxford House represents an important network of recovery homes that promote abstinence for individuals needing ongoing support after an initial episode of substance abuse treatment.

Our NIDA-Study

Our next large scale completed study received funding from the National Institute on Drug Abuse (NIDA). This study examined abstinence-specific social support and successful abstention from substance use in a national sample of over 900 Oxford House residents. Results were quite positive; only 18.5% of the participants who left Oxford House during the course of the one-year study reported any substance use (Jason, Davis, Ferrari, & Anderson, 2007). Additionally, over the course of the study, increases were found in the percentage of their social networks who were abstainers or in recovery. Finally, latent growth curve analyses indicated that less support for substance use by significant others and time in Oxford House predicted change in cumulative abstinence over the course of the study.

Within this large study, we analyzed psychiatric severity data such that we compared residents with high versus low baseline psychiatric severity (Majer, Jason, North, Davis, Olson, Ferrari et al., 2008). No significant differences were found in relation to residents' number of days in

outpatient and residential psychiatric treatment, abstinence rates, and Oxford House residence status. These findings suggest that a high level of psychiatric severity is not an impediment to residing in self-run, self-help settings such as Oxford House among persons with psychiatric co-morbid substance use disorders.

Kim, Davis, Jason, and Ferrari (2006) examined the impact of relationships with parents, significant others, children, friends and co-workers on substance use and recovery among this national sample of Oxford House residents. They found that children provided the only type of relationship that was able to affect both substance use and recovery in a positive direction. D'Arlach, Olson, Jason, and Ferrari (2006) found that the children residents had a positive effect on the women's recovery, and this positive effect was identical for both mothers and non-mothers. It is possible that these positive effects are due to the fact that having children present leads to increased responsibility among all House residents, aiding in recovery. Women also reported that Oxford House residents helped one another with child care. Ortiz, Alvarez, Jason, Ferrari and Groh (2009) found that Houses with men and children had the highest rates of long term recovery, and perhaps men in recovery who take care of their children are in situations more advantageous to sustained recovery and have more resources compared to others.

Within this large national data set, we also examined ethnic differences. Within our sample, 58.4% were Caucasian, 34.0% were African American, 3.5% were Hispanic, and 4% were other. African-Americans were over represented in the sample. Flynn, Alvarez, Jason, Olson, Ferrari, and Davis (2006) found that African Americans in Oxford House maintain ties with family members yet develop supportive relationships by attending 12-step groups and living in Oxford House. These different social networks are able to provide support for abstinence to African Americans.

Less than 4% of our sample with Hispanic, and this led us to examine possible reasons for this under-representation. Alvarez, Jason, Davis, Ferrari, and Olson (2004) interviewed nine Hispanic/Latino men and three Hispanic/Latina women living in Oxford House. Only two individuals were familiar with Oxford House prior to entering residential treatment; the others had never heard about the program. Participants decided to move to an Oxford House based on information they received from counselors and peers indicating that Oxford House would facilitate their recovery. Prior to entering Oxford House, participants were concerned that House policies would be similar to those of half-way houses they had experienced (i.e., too restrictive).

Half the individuals interviewed also had concerns about being the only Hispanic/Latino House member. Despite their initial concerns, participants reported overwhelmingly positive experiences in Oxford House, with the majority of interviewees indicating that they "blended into the house" within their first few weeks. Most participants reported regular contact with extended family members and stated that family members supported their decisions to live in Oxford House. The most commonly endorsed suggestion for increasing Hispanic/Latino representation in Oxford House was to provide more information regarding this innovative mutual-help program. Residents indicated that personal motivation for recovery was a necessary component of their success in Oxford House (Alvarez, Jason, Davis, Ferrari, & Olson, 2007). Additionally, mutual help, social support, a sober living environment, and accountability emerged as strongly-endorsed therapeutic elements of the Oxford House model. Finally, consistent with a broad conceptualization of recovery, residents reported that living in Oxford House helped them remain sober but also facilitated the development of life skills and a new sense of purpose along with increased self-esteem.

There were only seventeen American Indian participants in our national NIDA study (Kidney, Alvarez, Jason, Ferrari, & Minich, 2009). Nevertheless, American Indians were no more likely to report more severe substance use, psychological problems, criminal histories, or lower incomes than other groups. In addition, American Indians were more likely to report being on parole or probation and being referred for aftercare by the legal system. Moreover, American Indians reported greater disharmony within their recovery residences than Caucasians, but there were no significant ethnic differences in length of stay in Oxford House.

Finally, Mortensen, Jason, Aase, Mueller, and Ferrari (2009) studied this national sample of Oxford Houses for six years following the completion of our study in order to investigate factors related to whether the Oxford Houses remained open or closed. Results indicated a high sustainability rate (86.9%) during a six year period of time. Houses that remained open had significantly higher incomes of residents than houses that eventually closed. No other significant differences were found between the two groups of houses, including sense of community among residents, neighborhood or policy characteristics, and house age. It appears that adequate house income seems to be a necessary factor for houses continuing to function over time.

Impacts Beyond Oxford House: Community Perceptions

Because the Oxford House organization was frequently confronted with a variety of community reactions to the presence of an Oxford Houses, our team decided to explore attitudes of neighborhood residents toward Oxford Houses (Jason, Roberts, & Olson, 2005). We found that neighbors who lived next to an Oxford House versus those a block away had significantly more positive attitudes toward a) recovery homes, b) the importance of individuals in recovery to have the ability to live in residential neighborhoods, c) neighbors' roles in providing a supportive environment to those in recovery, and d) a self-run recovery home on their block. Oxford House residents are often considered good neighbors, and when neighbors get to know these residents, they often feel very positive about these homes. Many individuals who lived a block away did not even know that a recovery home existed in their neighborhood, and the attitudes of these individuals who did not know the Oxford House members was less positive in general about these types of recovery homes. In addition, property values for individuals next to recovery homes were not significantly different from those living a block away. These findings suggest that well-managed and well-functioning substance abuse recovery homes elicit constructive and positive attitudes toward these homes and individuals in recovery (Ferrari, Jason, Sasser et al., 2006).

We were also interested in exploring whether rates of crime increased in locations where there were Oxford Houses. We investigated crime rates in areas surrounding 42 Oxford Houses and 42 control houses in a large city (Deaner, Jason, Aase, & Mueller, 2009). A city-run Global Information Systems (GIS) website was used to gather crime data including assault, arson, burglary, larceny, robbery, sexual assault, homicide, and vehicle theft over a calendar year. Findings indicated that there were no significant differences between the crime rates around Oxford Houses and the control houses. These results suggest that well-managed and governed recovery homes pose minimal risks to neighbors in terms of criminal behavior.

We also designed a study to assess the types of contributions that Oxford House residents report making to their neighborhoods and communities. Jason, Schober and Olson (2008) found that Oxford House members reported participating in the community for about 10.6 hours per month. The majority of participants were involved in activities around their recovery. Sixty-three percent were involved in mentoring others in recovery. Forty-four percent of the sample was involved in administering and running support groups. Involvement around recovery also included involvement in large community initiatives, as 39% of participants reported involvement in informing or advising agencies or local leaders and 32% reported involvement

in community anti-drug campaigns. For some, this involvement also included speaking at political events (16%), and attending community meetings (30%), and public hearings and forums (21%). Other general community activities reported by participants included working with youth (32%), fundraising (30%), and volunteering time with community organizations (23%). These findings indicate that Oxford House residents are not only working on their own recovery, but also working to make positive changes in their communities.

Group homes like Oxford House sometimes face significant neighborhood opposition, and municipalities frequently use maximum occupancy laws to close down these homes. Towns pass laws that make it illegal for more than 5 or 6 non-related people to live in a house, and such laws are a threat to Oxford Houses which often have 7–10 house members to make it inexpensive to live in these settings. Jason, Groh, Durocher, Alvarez, Aase, and Ferrari (2008) examined how the number of residents in Oxford House recovery homes impacted residents' outcomes. The Oxford House organization recommends 8–12 individuals residing in each House (Oxford House, 2006). Homes that allow for 8 or more residents may reduce the cost per person and offer more opportunities to exchange positive social support, thus, it was predicted that larger Oxford Houses would exhibit improved outcomes compared to smaller homes. Regression analyses using data from 643 residents from 154 U.S. Oxford Houses indicated that larger House size predicted less criminal and aggressive behavior. These data were used in 5 court cases, which were successful in arguing against closing down Oxford Houses that had more than 5 or 6 non-related residents.

Conclusion

Our overall findings that emerged from two large NIH-funded grants suggest that Oxford House provides an effective and inexpensive alternative for many individuals attempting to recover from addictions to alcohol and other drugs (Jason, Davis et al., 2007; Jason, Olson et al., 2006). Our findings from a number of other studies indicate that Oxford House may be appropriate for a variety of individuals recovering from substance abuse, including those with histories of legal involvement and co-occurring mental health conditions. Oxford House appears to provide a substance-free environment where recovering individuals may live without restrictions on length of stay, and residents report that residential settings devoid of relapse triggers help them remain substance-free (Jason et al., 1997; Alvarez et al., 2007). Given the high costs associated with professional treatment, it is critical to identify more affordable community-based models that might provide long-term support in order to break the cycle of relapse (for more details, see also Jason, Ferrari, et al. 2006; Jason & Ferrari, 2009).

Our research examined the nature and outcomes of the Oxford House model of substance abuse recovery. We worked with the needs of diverse groups, including ex-offenders, minority groups including Native Americans, and women and women with children. Our efforts involved a commitment to collaborative research with a grass-roots organization, assessing change at multiple levels with a multidisciplinary team of economists, biostatisticians, social, developmental, clinical and community psychologists.

For over 18 years, our research team used cross-sectional, operant (Jason, Braciszewski, Olson, & Ferrari, 2005), and longitudinal designs; employed quantitative and qualitative methods, and used self-report, observational (Jason, Ferrari, Freeland, Danielewicz, & Olson, 2005), and organizational data to assess Oxford Houses. We collected data at the individual, house, and state levels, and at times compared data over these different levels of analysis. We believe that selecting multi-level, multi-methods approaches allowed us to better clarify complex phenomena that we were studying.

We also believe that Oxford Houses and other community-based support system provide social scientists with rich opportunities to explore a vast array of psychological and sociological constructs. Because of space constraints, we were not able to review other topics our Oxford House research group has explored, but they include criminal and aggressive behaviors (Aase, Jason, Olson, Majer, Ferrari et al., 2009), anxiety (Aase, Jason, Ferrari, et al., 2006–2007), hope (Mathis, Ferrari, Groh, & Jason, 2009), optimism (Majer, Jason, & Olson, 2004), tolerance (Olson, Jason, Davidson, & Ferrari, 2009), self-regulation (Ferrari, Stevens & Jason, 2009), social climate (Horin, Alvarez, Jason, & Sanchez, 2007), social support (Groh, Jason, Davis, Olson, & Ferrari, 2007), altruism (Viola, Ferrari, Davis, & Jason, 2009), sense of community (Bishop, Jason, Ferrari, & Huang, 1998; Graham, Jason, & Ferrari, 2009), employment issues (Belyaev-Glantsman, Jason, & Ferrari, 2009), and even specialized Oxford Houses for deaf residents (Alvarez, Adebanjo, Davidson, Jason, and Davis (2006). Clearly, psychologists with interests in community based support networks for substance abusers have ample research topics worthy of exploration, and this research may have public policy implications.

We currently have received NIH support to begin researching individuals leaving jail and prison with substance abuse problems. This line of research could be expanded to other levels or target groups, such as men and women with substance abuse returning from foreign wars in Iraqi and Afghanistan. Reports of post-traumatic illnesses and substance abuse among returning veterans suggests that cost effective programs like Oxford House need closer federal attention. Our work with African Americans suggests that the Oxford House model meets cultural needs of this group; but culturally-modified houses might need to develop to meet the needs of Spanish-speaking Latinos due to their lack of representation within Oxford Houses. Our group has recently received a federal grant to explore this new type of culturally modified recovery home.

Clearly, it is important to improve the quality of the data for outcomes research with residential substance abuse treatment. Both NIDA and NIAAA have health services research study sections that are willing to review these types of applications. It is hoped that more researchers will consider developing grant proposals in this area, particularly as research focusing on the solution of applied problems is becoming a larger priority area for the federal government. With adequate funding, large clinical trials can emerge and adequate personnel can be employed for the arduous task of tracking over time these at-risk samples.

Implications for Clinical Practice

Alcoholism and substance abuse affects over 20 million Americans, and thus is the most prevalent mental disorder facing our nation (Jason, Ferrari, Davis, & Olson, 2006). Many psychologists are involved in the delivery of services to those with substance abuse addictions. Each year, 600,000 inmates are released back into communities, and many are released with ongoing drug addictions (substance abuse within correctional facilities ranges from 74 to 82%; Keene, 1997). One of the strongest predictors of criminal recidivism is substance use (Bureau of Justice Statistics, 2005). According to Horgan, Skwara, Strickler, Andersen, and Stein (2001), societal costs attributed to substance abuse in the United States alone is greater that $500 billion, which includes substance abuse treatment and prevention, medical and criminal costs, accidents, and losses of earnings. Of those with substance use addictions/dependence, only about 10% even reach any type of substance abuse treatment. This suggests a large need for creative new types of screening methods to identify patients in need of treatment. Almost all medical problems are first identified by primary care and referred to specialists, but this is not the case with substance abuse disorders, where most individuals first approach specialist substance abuse treatment settings. The Office of National Drug Control Policy is currently considering recommending that primary care settings should identify people with substance

abusers in primary care settings in order to refer more patients to detoxification and treatment. If this occurs, there will emerge unique opportunities for psychologists in both screening and referral.

For many individuals with substance abuse problems, entry into the existing continuum of services begins in a detoxification program. In the optimal case, an individual completes the detoxification process and then moves through a time-limited therapeutic program, but these programs are becoming briefer as federal, state and local sources of funding for these services has decreased (Jason, Olson & Foli, 2008). Detoxification program readmission represents a potential indicator that services received have not facilitated sustained recovery. It has been suggested that for a substantial portion of addicted persons, detoxification does not lead to sustained recovery. Instead, these individuals cycle repetitively through service delivery systems (Richman & Neuman, 1984; Vaillant, 2003). Recidivism rates within one year following treatment are high for men and women, and 52–75% of all alcoholics drop out during treatment (Montgomery et al., 1993). These kinds of programs are also expensive (Schneider & Googins, 1989).

These findings provide a challenge to psychologists working in the addiction field. The missing element for many patients is supportive settings following treatment for substance abuse, and the expansion of these types of settings is an important activity for psychologists. Vaillant (1983) noted that environmental factors may be key contributors to whether or not individuals maintain abstinence, and these factors include the support one receives for abstinence among their support networks. Moos (2006 Moos (2007) pointed to other individual, biological, and socio-environmental factors that predicted abstinence maintenance. Moos (1994) maintained that effective interventions for recovering individuals might be those that engage clients and promote naturally-occurring healing processes, such as self-help based treatments. Abstinence-specific social support may be critical to facilitating abstinence among persons with substance use disorders. Such social support is often acquired and utilized through participation in mutual-help groups (Humphreys, Mankowski, Moos, & Finney, 1999), where individuals are likely to develop peer networks consisting of abstainers and others in recovery. Investment in abstinence-specific social support was reported to be one of the best post-treatment prognostic indicators of recovery (Longabaugh et al., 1995; Zywiak, Longabaugh & Wirtz, 2002).

Oxford Houses represent one type of community support that psychologists could refer patients to, and this can be accomplished by reviewing the website for Oxford House, where all houses and current vacancies are listed (see http://www.oxfordhouse.org/locate_houses.php). Professional-practicing psychologists may make a referral to an Oxford House by asking the patient to call the Oxford House and set up an appointment with the house members for possible entry into that house.

Of course, no one particular type of treatment setting is appropriate for all individuals. Individuals early in their recovery or with particular interpersonal characteristics might need more of a structured and professionally-led milieu in order to maintain abstinence given the freedoms that are provided in Oxford Houses. In our national NIDA data set (Jason et al., 2007), 43% of participants had a history of psychological medications, 30% had attempted suicide, 46% had a history of physical abuse, 35% had a history of sexual abuse, 40% had one or more inpatient psychiatric treatments, and 40% had one or more outpatients treatments. In the past 90 days, the sample had an average of 1 day of residential treatment for psychiatric problems and an average of 3 sessions with a counselor for psychiatric problems. Certainly, it is clear that the sample of Oxford House residents do have significant mental health problems and that they do utilize mental health services outside of their Oxford Houses. Although there are no on-site clinical services, effective outreach can be accomplished by mental health

professionals becoming aware of the existence of these abstinent specific settings, and informing residents that they are willing to provide supportive therapy services to residents.

Given the expanding federal deficit and obligations to fund social security, it is even more important for psychologists to consider inexpensive ways to remediate inequities within our society. The Oxford House model suggests that there are alternative social approaches that can transcend the polarities that threaten our nation (Jason, 1997). We believe that there is much potential in the Oxford House model for showing how intractable problems may be dealt with by actively involving the community.

Acknowledgments

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Size, Quality, and Cost of Residential Settings:

Policy Analysis of Literature and Large Data Sets

Table of Contents

Executive Summary

This Policy Report is a summary of scientific evidence bearing on one issue:

What impact does bed size of a group home have on quality of life and cost?

Aspects of quality of life[1] and costs are both considered. We consider several kinds of data, including research literature from several fields and new research. The result of this multi-perspective approach can be considered a form of "meta-analysis" – an attempt to synthesize information from many sources to shed light on a single question.

The issue has risen to prominence many times over the past century, and this time it is primarily because of the poor economy that took hold at the end of the first decade of the 21st century. Policy makers nationwide, and in Michigan, seem to believe that putting people with intellectual and developmental disabilities into larger and larger group homes will save money - with no major decline in quality.

Is this true? The question is explored in this paper, through three general methods:

1. Theoretical review of the concept of "economy of scale" from economics
2. Reviews of related scientific literature from Sociology, Organizational Psychology, Education, and Developmental & Intellectual Disabilities
3. Analyses of some of the largest quality of life and cost databases in the field of developmental and intellectual disabilities.

This is a very important question at this time in our history. The pressures to achieve economies are enormous. The purpose of this Policy Report is to assist policy makers in wrestling with this very difficult issue – knowing that one size can never fit all, that variety and choice of kinds of settings are important, and yet to approach the question from the "meta" perspective – other things being equal, and on the average, is it wise to increase group size in residential settings?

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[1] Quality of life is composed of a complex of factors, such as comfort, freedom, good relationships, wealth, and security, that combine together in different ways and different priorties for different people. There is no single definition that satisfies all. Quality of life is best thought of as multiple dimensions of qualities of life. Many dimensions must be measured so that interested parties can draw their own conclusions about which qualities and which tradeoffs are "most important" to them. This is the strategy employed in this and related papers, e.g., *Conroy, J. (1986). Principles of quality assurance: Recommendations for action in Pennsylvania. Philadelphia, PA: Temple University Developmental Disabilities Center/UA*P.

The scientific literature review began with a thorough review of four kinds of scientific literature that was conducted in 1992.[2] These reviews were then updated with more recent quantitative (data-based) studies and findings, bringing the state of knowledge up to the present.

The quantitative analyses were made possible by the fact that the author of this Policy Report has conducted some of the largest and longest lasting studies of quality of life, costs, and outcomes in the field of intellectual and developmental disabilities. Most of these databases had never been specifically analyzed to explore the relationships between the size of community residential settings and their quality. Old analyses from the National Consumer Survey, the Pennhurst Longitudinal Study, and the Connecticut Applied Research Project were reviewed and refined based on the most recent analytical approaches. Then large data sets from California, Indiana, Michigan, Oklahoma were analyzed for size effects for the first time. In addition, recent analysis performed by the National Core Indicators project, now the largest national database on quality in developmental disabilities, is included.

For the purpose of this Executive Summary, here is what we can learn from the sources above in bullet form.

- **Very Large Settings (Institution versus Community)**: This issue is regarded as "settled science." From the 1909 White House Conference on Care of Dependent Children to the deinstitutionalization movement of the latter half of that century, we now know that very large settings, whether they are called orphanages or developmental centers, are not optimal places for people to grow, learn, and socialize. The largest settings are portrayed in the developmental disabilities literature as the least cost-effective, as well. The economy of scale argument is compellingly refuted[3] by the decades of scandals, evidence of poor quality, and the high cost of large institutions.

- **Economy of Scale**: Policy makers have often remembered the economy of scale phenomenon from elementary economics, but have not remembered the 'next page' of the textbooks – which described diseconomy of scale. Organizations that become too large show drop-offs in quality and productivity. This inevitably will happen in human residential groupings as

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[2] Conroy, J. (1992). *Size and Quality in Residential Programs for People with Developmental Disabilities*. A Dissertation Submitted to the Temple University Graduate Board in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy. Philadelphia: Temple University.

[3] At least in part – for the comparison of very large to very small – but this Policy Report goes on to analyze outcomes and cost-effectiveness within the small range, usually called "community living" realm.

well. Given the national rejection of the very large scale groupings, i.e. institutions, the question becomes where the diseconomy of scale sets in within the range of 1 to 10 people receiving supports in a home. Literature evidence appears to imply that the turning point is around 4 people – going above 4 is not beneficial, and beyond 6 is sharply negative. New research analyses performed for this Report support this inference rather strongly.

- **Sociology**: Group sizes above roughly 4 to 6 people tend to show losses in individual participation, effort, communication, and satisfaction.

- **Organizational and Industrial Psychology**: The entire notion of Economy of Scale in industrial production is questioned, the application of industrial models to human service processes is challenged, and the evidence in favor of small groups for both productivity and member satisfaction is strong. Studies support the sociological evidence that group sizes are ideally kept small, meaning in the range near 5 people. With more people than that, diminishing returns set in.

- **Education and Classroom Size**: Class size in the range 15 to 40 students has some impact on their achievement, but it is quite small. Size in that range has a much larger impact on qualitative measures like enjoyment and morale. Large effects on student achievement are found only when the instructional group size shrinks to the very small, below 10 students. The truly dramatic benefits are only seen at the level of 1 to 3 students, which is more like tutoring situations, and appears to be explained by the heightened frequency of one to one interactions. This finding from more than 100 years of research, and hundreds of studies, merits very careful consideration for policy concerning residential program size – particularly if learning and behavioral development are desired outcomes of residential programs.

- **Analyses of the Largest Data Sets in the Field of Developmental and Intellectual Disabilities**: By combining old data with newly analyzed recent data, the pattern of declining quality with increasing size of community homes becomes more clear. Increasing the size of group homes is associated with considerable risk of losses in many dimensions of quality. The decline begins at 4 residents and above; beyond 6, the decline is sharper.

- **Money**: By simply looking at the average cost per person of community homes across the large data sets, we find only weak and conflicting evidence that making homes larger results in savings.[4] In the broad view, the conclusion is the exact opposite. The largest settings are, in fact, the most expensive human services in human history. In this Policy Report, we show

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[4] This is a question that requires further study, however, because the kind of people assigned to larger and smaller settings tends to vary somewhat. This may complicate the cost findings.

evidence that, even in the range below 10 people in a home, the larger settings do not consistently show cost savings.

For policy makers and advocates in the field of developmental and intellectual disabilities, what is learned from the current state of the literature and most recent science strongly supports a few fairly simple conclusions:

Other things being equal, smaller homes are associated with higher qualities of life and better outcomes.[5]

The evidence that systems can 'save money' by putting people into larger group homes is extremely weak, and the common interpretation of 'economies of scale' has consistently neglected to include consideration of 'diseconomies of scale.' Moreover, careful review of decades of studies on the economy of scale arguments in industry and sociology strongly lead to doubt about the original assumptions of higher productivity in larger organizations.

There is no consensus on what constitutes the optimal number of people in a residence, but across an extraordinary variety of states and systems, qualities of life and outcomes drop measurably when there are 5 residents, and drop sharply when there are more than 6 residents.

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[5] Some of the qualities of life and outcomes treated in the present research are individualized treatment, opportunities for control over one's own life (with support as needed), person-centered planning, physical quality of the home, integration, friendships, comfort, lack of loneliness, services delivered for specified needs, achievement of individual goals, and self-reported qualities of life.

The Notion of Economy of Scale

There is a great deal of pressure, during the current hard fiscal times, to move people with intellectual and developmental disabilities into larger and larger homes to save money. A great deal of the pressure to do this arises from the idea that it would be more "efficient." The notion of "Economy of Scale" is at the core of this kind of thinking. This is an idea from economics that is present in every elementary textbook. Unfortunately, the Economy of Scale idea is only half of the true picture – the other half is Diseconomy of Scale, which has usually been forgotten or ignored by proponents of larger settings.

The idea of Economy of Scale comes from the original 'assembly line' innovation of industrial production. The bigger the plant, the greater the 'per-worker' productivity was the belief – because bigger plants could keep all the resources for allied and ancillary needs in one place – instead of having separate administrative units and support operations for many small and separate units.

This kind of thinking helped create America's movement toward large scale institutions. Samuel Gridley Howe, who brought the model of a self-sufficient agrarian community (the original institutional model) to America in 1848, said soon after seeing the fruits of his innovation,

> As much as may be, surround insane and excitable persons with sane people, and ordinary influences; vicious children with virtuous people and virtuous influences; blind children with those who see; mute children with those who speak; and the like.
> **People run counter to this principle for the sake of economy**, and of some other good end, which they suppose cannot be had in any other way; as when they congregate the insane in hospitals, vicious children in reformatories, criminals in prisons, paupers in almshouses, orphans in asylums, blind children and mute children in boarding schools. Hence I begin to consider such establishments as evils which must be borne with, for the time, in order to obviate greater evils. I would take heed, however, against multiplying them unnecessarily. I would keep them as **small** as I could. I would take the most stringent measurements for guarding against those undesirable effects which lessen their usefulness; and for dispensing with as many of them as may be possible.

The general theory of Economy of Scale is simple. As the size of an organization increases, the ability to keep administration centralized will cause higher productivity per worker per hour. In graphic form, it looks like this:
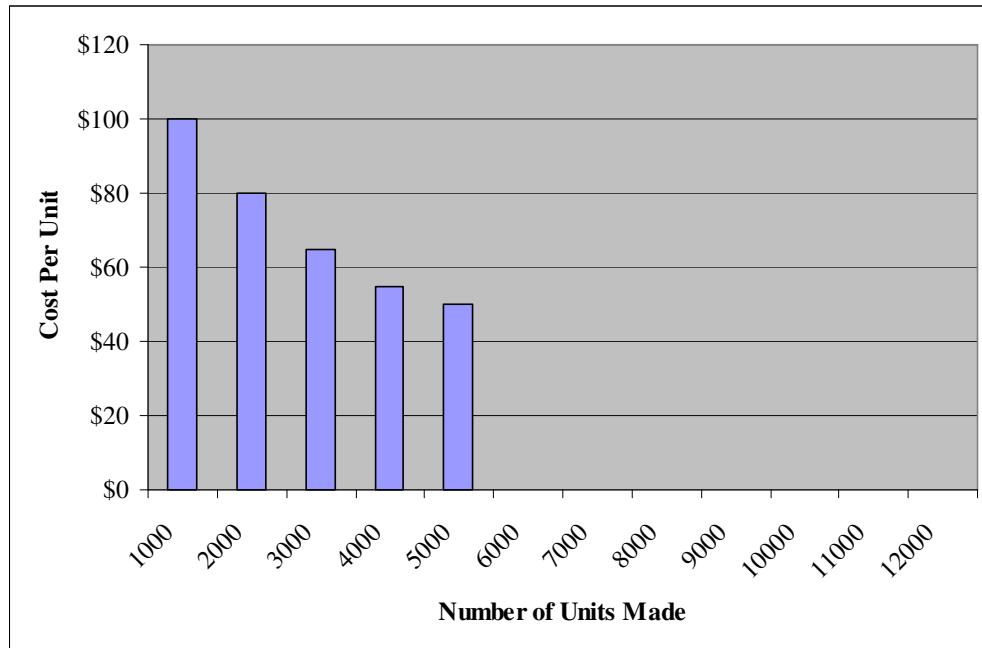
The graph shows the "Cost Per Unit" going down with the size of the operation –
the total number of units manufactured. This was part of Henry Ford's greatest
innovation with the 'assembly line' concept. Efficiency was the goal.

Of course, there had to be a limit to this gain in efficiency with size. That
limit was called "Diminishing Returns" in many textbooks, and it looked like the
graph below – as the size of the operation got even bigger, there were no further
gains in efficiency.

$120
$100
$80
$60
$40
$20
$0

Cost Per Unit

1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 11000 12000

Number of Units Made
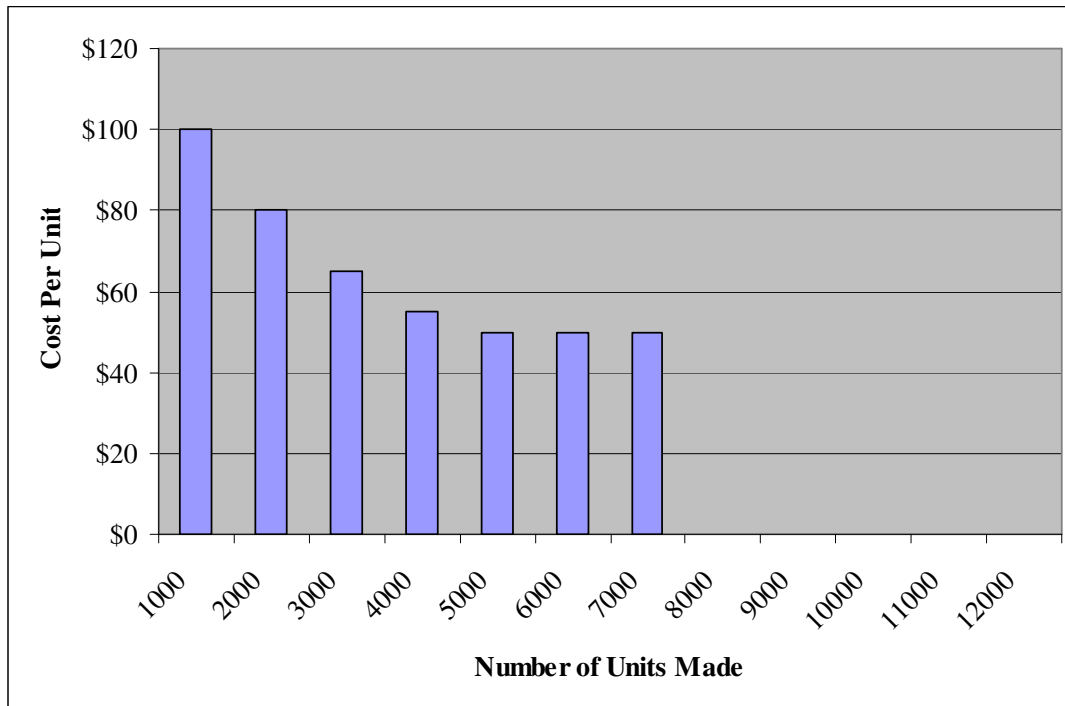
As the size of the operation increased to higher levels, the Cost Per Unit stayed the same. This 'leveling off' of the theorized gains with size was the point of Diminishing Returns.

What is forgotten by most policy makers in the human services is that the economists long ago realized that there is also "Diseconomy of Scale." When organizations become too large, inefficiencies set in. This phenomenon is the subject of a very large literature in economics, reviewed in Appendix B of this Policy Report, but the salient point is that organizations that become too large not only lose the theorized Economy of Scale – they go the other way – into Diseconomy of Scale. That situation is graphically represented below.
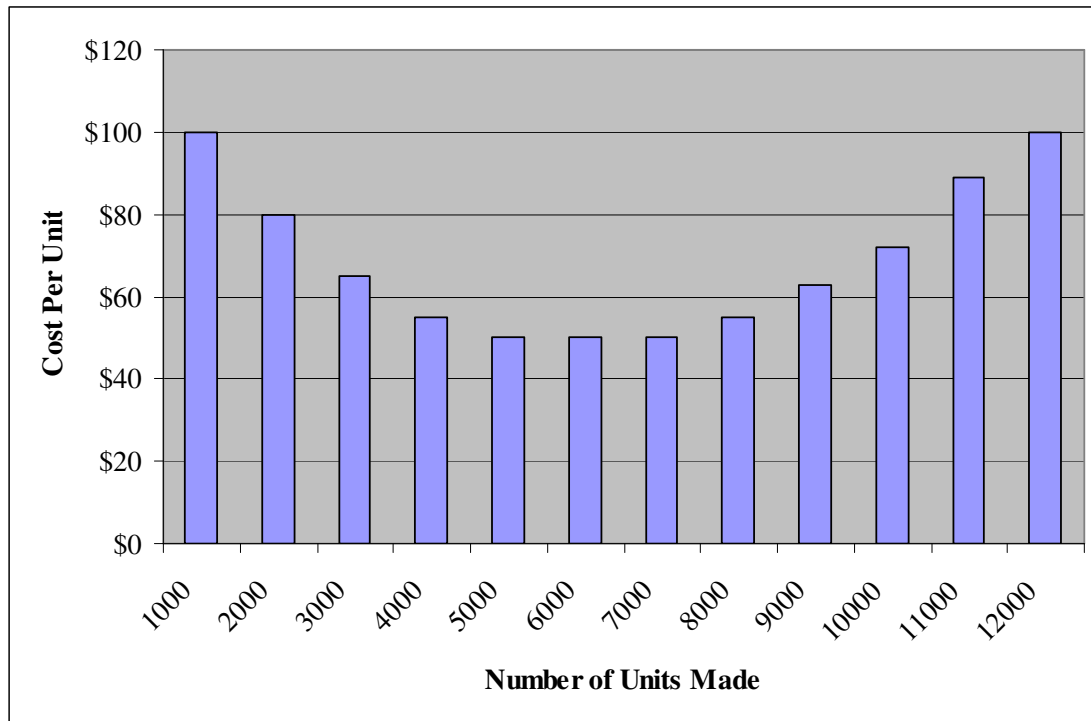
When an organization gets too big, its efficiency suffers. On the right side of the graph, cost per unit goes right back up to where it began, when the organization gets bigger.

According to Shumacher (1973), that is a natural part of the ecology of organizations – and when they reach such counterproductive sizes, they tend to break up into smaller subunits.

Because the current fiscal climate drives policy toward economy, it is essential to know whether larger residential settings will indeed lead to cost savings without major losses in quality of life. The simple pattern of Economy of Scale, followed by Diseconomy when groups become too large, strongly suggests that homes for people with intellectual and developmental disabilities might fall into diseconomy if made too large. The question has become: Where is that point in size, beyond which quality may be impaired and costs may begin to rise back up?

The research literatures from Sociology, Organizational Psychology, and Education all shed considerable light on this issue. From multiple perspectives, the optimal size of human groupings tends to converge in the region below 10 people for most, if not all, important functional tasks. The latest literature in intellectual

and developmental disabilities on the issue of size, plus the new analysis of the largest databases, supports those perspectives.

The Group Size Issue in Sociology

The review of sociological interest and research shows that questions about group size have been a major concern in the development of modern sociology. Beginning with Simmel, continuing right into the content of the most recent introductory textbooks, and covering nearly 100 years, it is clear that group size has been a major concern of sociologists. The scientific evidence about group size and group effectiveness gives a complex picture, probably because of the many and varied approaches to measuring effectiveness. However, a consensus from the sociological literature does seem to emerge: human beings tend to prefer to live, work, and play in small rather than large groups. The preferred group size is clearly below 10 people, but beyond that, the evidence is not yet conclusive.

This sociological tradition and interest in group size is in some ways to be quite relevant to the issue of residential program size. In particular, these findings suggest useful insights into the question of group homes for citizens with disabilities, in that within the small group size range, as size increases,

- People spontaneously interact in very small groups, mostly dyads or one on one (as in the direct observation of natural interactions research of James)
- People spontaneously subdivide their groups, rarely allowing them to exceed 5 or 6 people (as in the party situation studies of Simmel)
- Participation via individual effort tends to decrease in a phenomenon often called 'free riding' (as in the tug of war studies of Kohler)
- Participation via communication tends to decrease and centralize, relying on increased leadership by the few, but allowing anonymity and silence by the many (as found by Bales et al.)
- Authoritarianism increases from group size four to eight, correlating with the emergence of leadership and of members becoming passive followers (in the work of Carter et al.)
- Satisfaction with group process may reach a 'saddle point' around five people (as in the famous and influential work of Slater)
- Satisfaction with group process falls off in groups above five, and keeps falling lower into the teens, where it levels off at a low state
- Increasing size is related to formalization, rulemaking, regimentation, bureaucratization, and decreases in personal relations (discussed by Clegg & Dunkerley)

Applying these sociological findings to the world of residential programs implies that small numbers of residents are beneficial to the quality of life and interactions of individuals However, there is insufficient evidence to draw conclusions about specific sizes of homes that are 'too big.' And, as is obvious from the beginning, there really cannot be an optimum number for all groups and all kinds of people. One size will never fit all. Nevertheless, our effort here is to think in policy terms, covering thousands of people, in thousands of homes, and considering the averages of well being and quality across them. With that perspective, the sociological body of knowledge suggests that there is probably a natural human break point somewhere between four and six people in a home. Group sizes that big can be tolerated, and can sometimes be effective and/or satisfying – but where there are more people than that, the most desirable qualities of intimate and rewarding human interaction are lost.

The Group Size Issue in Organizational and Industrial Psychology

Until the 1980s, the study of size and effectiveness in the organizational research literature was somewhat chaotic, and very difficult to interpret. In 1985, Gooding and Wagner reviewed the relationship between size and performance of organizations and their subunits. Gooding and Wagner screened nearly 200 published studies, and selected 31 that met consistent methodological criteria. From these 31 studies, they attempted to find an interpretable pattern. The remainder of this section is a review of their conclusions.

Gooding and Wagner noted that three kinds of scientists had been at work on the question:

1. Industrial-organizational economists had approached it through examination of organizational economies of scale. Most often, these analysts were searching for the size of organization or unit that would optimize the cost per unit of production. Findings in the literature were inconsistent.
2. Many, but not all, organizational theorists also approached the problem with an inherent belief that organization size would be associated with significant economies of scale. Others emphasized the ability of larger organizations to exert more control over the sources of resources. This and related perspectives predicted that larger organizations would produce more, but not necessarily more per worker.
3. Social psychologists approached the problem largely from the group, rather than organizational, level, and often reported an insignificant relationship between group size and indices of effectiveness, but sometimes reported decreasing effectiveness with increasing size. These analysts frequently hypothesized "free riding" as the culprit (in which group members, relatively anonymous in larger groups, could slack off with no one noticing), and also higher coordination costs with larger groups.

These three kinds of scientists had been approaching the question with different definitions and measurement techniques. Gooding and Wagner suggested that the reason the literature was confusing and often contradictory was that different kinds of scientists had been defining and measuring things differently. Gooding and Wagner specified three dimensions which had varied across studies:

1. The LEVEL OF ANALYSIS. Some studies had examined entire organizations, while others had analyzed subunits within large organizations.
2. The PERFORMANCE MEASURE. Some studies had used key informant ranking, others used organizational records, and others used physical output. Most importantly, some had used absolute output and others had used relative output (i.e., output per unit of size), potentially a very important difference.
3. The SIZE MEASURE. Some investigators had operationalized the size variable as the number of employees, others as the number of beds in a hospital or like facility, others as financial assets, and other as the magnitude of output transactions such as sales or number of clients served.

Gooding and Wagner concluded that these three variations could explain a major proportion of the differences across the studies. Employing a form of meta-analysis, as improved by Hunter, Schmidt, and Jackson (1982), Gooding and Wagner categorized each of the 31 studies according to the level of analysis, the performance measure, and the size measure. Their conclusions were clear:

1. Studies that used the organizational LEVEL OF ANALYSIS found that larger organizations were more productive in absolute terms, but not in ratio terms. That is, larger organizations produced more units, but did not produce more per worker. Gooding and Wagner concluded that there was actually no evidence for economies of scale in terms of worker efficiency. This finding was consistent across a variety of SIZE MEASURES.
2. Studies that used the subunit LEVEL OF ANALYSIS showed a negative relationship between size and productivity, both for absolute and relative measures of performance. This also held true across studies using a variety of SIZE MEASURES.

The group home size question is at the subunit LEVEL OF ANALYSIS. The typical situation is that a private service provider corporation operates several group homes. Thus each group home is a subunit of the larger organization. The group home PERFORMANCE MEASURES are related to the quality of life of the individuals in the group homes, and are therefore best thought of as efficiency measures. For example, growth in adaptive behavior/independent functioning per unit of staff time or per dollar would be useful measures of performance. The SIZE MEASURE in the group home situation is simple: the number of people living in the home.

According to Gooding and Wagner's meta-analysis, then, we should expect to find smaller group homes producing more positive outcomes.

The organizational literature reviewed here includes more than 100 pieces of primary research. From them, no clear consistent pattern of the organization size and effectiveness relationship emerged, until the meta-analysis of Gooding and Wagner (1985). They showed that prior studies had varied in their levels of analysis (organization or subunit), their performance measures (absolute or relative), and their size measures.

When these were examined via meta-analysis, a clear pattern did emerge. This pattern called the entire notion of Economy of Scale into serious question.

Whether approached from the perspective of the organization or the subunit, when confounding variables were controlled, larger organizations and larger subunits did <u>not</u> produce more per worker.

The contribution of Schumacher, in ***"Small Is Beautiful: Economics as Though People Mattered"*** is considerable in the present context. While Gooding & Wagner's brilliant meta-analysis brought order to the study of organizational size, it also called the traditional Economy of Scale assumptions into very serious question. At the same time, Schumacher was calling for consideration of outcomes other than economic. Our concern in the human services is precisely suited to this refreshing new perspective – and it came along at the same time that even the most rigorous scientists were questioning whether larger plants really produced more widgets per person per hour. Perhaps our assumptions about size and Economy of Scale, so easily imported from industry into the human services, were dangerously misleading.[6]

The organizational goals of group homes for people with intellectual disabilities are fundamentally human, not financial. They are primarily concerned with the quality of life experienced by the people who live in them.[7] Quality is multi-dimensional; it has dozens of aspects. Among them are developmental progress toward increased independence and socially appropriate behavior, integration, relationships, opportunities for choicemaking, satisfaction, individualization, services and supports intensity, attainment of individual goals, normalization, health, safety, and physical comfort. Hence indicators of each of these organizational goals must be explored. If the analyses are done properly, the quality and outcome indicators are likely to turn up to be strongly related to size, if the literature from organizational and industrial psychology is any guide.

For this Policy Report, we performed exactly that kind of analyses, across many states and many thousands of people in various kinds of homes and service milieus.

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[7] And the direct support people who work in them – good research must take both into account as a synergistic and mutually reinforcing system.

The Group Size Issue in Education: The Class Size Debate

Just on the topic of academic achievement, illustrating the degree of conflict in 100 years of study of this issue, Slavin (1989) wrote:

> The search for substantial achievement effects of reducing class size is one of the oldest and most frustrating for educational researchers. The search is approaching the end of its first century; eventually, it may rival the search for the Holy Grail in both duration and lack of results. (Page 99.)

The situation had been substantially improved by application of the method called "meta-analysis," which means rigorously pooling the findings from a lot of studies, weighting them by how well they were designed, and coming up with the best summary of all of them put together. Glass and Smith (1978) produced the first such analysis. They performed a meta-analysis on the outcomes of 77 studies that included 725 comparisons of student achievement between smaller and larger class sizes. (Glass was, in fact, in the process of creating the concept of meta-analysis while working on the class size literature.) In sharp contrast to past narrative reviews, which had seen the literature as internally inconsistent and inconclusive, Glass and Smith's meta-analysis came to the relatively clear conclusion that smaller classes were associated with superior achievement outcomes.

Cooper (1989) suggested caution, coupled with a firm conviction that the weight of the evidence was on the side of smaller classes:

> Reviewers of the class size literature disagreed over whether a reduction in instructional group size has its intended effect ... However, some consensus did emerge ... Reduced class size appeared to be most efficacious with low-ability or disadvantaged students when reductions were in the range typically associated with Chapter 1 programs. Such reductions may not only lead to higher achievement but to better student and teacher attitudes and morale and to an enrichment of the core curriculum. (Page 98.)

Slavin (1989) was skeptical, and did the entire meta-analysis over again, calling his new approach "best-evidence synthesis." Using exactly the same studies as Glass and Smith, and even their own tables, Slavin showed that the average effect of the smaller class size on achievement was no more than about 13% of a standard deviation. In statistical terms, that is a very small effect.

Equally interesting, multiyear studies showed that initial gains faded after a year or two, suggesting that smaller class sizes might have, not only small benefits, but temporary benefits as well. The studies in his analysis reduced class sizes from an average of 27 to 16 students. Yet the effects were very small indeed. In trying to

explain why this might be so, Slavin's strongest suggestion was that *"teachers' behaviors do not vary very much with size of classes."* The implication was that behaviors might change slightly, but in the size range of real world classrooms, teachers really did not markedly change how they taught students whether they had 16 or 27 in their class.

Most importantly for our current concerns about residential homes, Slavin also showed that the major educational effects, even in Glass and Smith's own tables, occurred in the very small "classes" of size 1 to 3. From that, Slavin inferred that class size was the wrong focus for those concerned with national policy. For students such as those served by Title 1, what would be most beneficial was not smaller classrooms, but individual or extremely small group tutoring. This may be a key finding for the search for quality in residential settings for people with intellectual and developmental disabilities: we need to aim above all for situations that support frequent one-to-one interactions.

But academic achievement, while it is the primary purpose of schools, is not everything. Slavin made a major concession when he mentioned factors other than achievement:

> Of course, it is important to note that reductions in class size do seem to have significant effects on other variables, such as teacher and student morale (Glass et al., 1982). Reducing class size may be justified on morale and other quality-of-life grounds. However, as a means of increasing student achievement, even substantial reductions in class size have little apparent impact.

It is most intriguing that Slavin, who so strongly believes that the achievement claims are nonsense, is willing to consider the notion that smaller class sizes produce other kinds of significant benefits. He admits that the evidence is fairly clear that people <u>like</u> smaller classes better. They are <u>happier</u> in them. The <u>quality of life</u> may be superior in smaller classes. This may be an important clue for the present effort, which is concerned with quality of life as much as behavioral outcomes.

Moreover, Slavin agrees that the evidence supports a notion that size may become very important when class size drops to three or fewer, a conclusion that may be highly related to group home models. Pennsylvania limited group home size to three people for more than 20 years, but then began to approve larger ones – with quality impacts that have been widely suspected, but not studied with rigor.[8]

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[8] Personal communication with leaders of three provider agencies, 2007.

In summary, the classroom size literature achieves consensus about only four findings: (1) smaller classes are usually found to be related to slightly better student achievement, but mostly in the lower grades; (2) smaller classes are consistently found to be "better" in terms of indicators of quality other than student achievement such as satisfaction and morale; (3) large differences in achievement and qualities of schooling are not found until class size drops below 10 students; and (4) dramatic improvements in student achievement are only found in the extremely small "tutoring" situations in which a single teacher is alone with just one or a very few students.

This fourth finding parallels a conclusion from the intellectual disabilities literature, that the best results come from situations in which single support workers are alone with a very small number of people.

The Group Size Issue in Residential Programs for People with Disabilities: Literature Review

This section provides a chronological review of the research concerning the size and quality of residential settings in the field of intellectual and developmental disabilities.

Klaber (1969) was among the first to suggest that setting size might be related to quality. He studied institutional settings in Connecticut, and concluded that living unit size was more influential than overall staff ratios in promoting quality. He suggested that 1 aide for 10 residents would result in much higher quality than 10 aides for 100 residents.

The next explicit treatment of the size issue in the intellectual disabilities field was that of King, Raynes, and Tizard (1971) in England. They developed a scale to measure the degree to which daily life was regimented and institution-oriented, as opposed to individualized and person-oriented, called the Resident Management Practices Inventory.[9] They applied the scale to mental deficiency hospitals (bed sizes from 121 to 1650), voluntary homes (bed sizes from 50 to 93), and group homes (bed sizes from 12 to 41). They found care practices to be more person-oriented in the smaller facilities. However, within any of the three types of facilities, size was not found to be significantly related to the quality indicator.

Their overall conclusion, which probably confused the size issue for years to come, was: *"Our hypothesis that management practices are not effected [sic] by institutional size was confirmed" (p. 184)*. What they meant to say was that the smaller types of facilities were always better than the larger types. Within a type, though, size did not matter; a 121 bed institution was just as regimented as a 1650 bed institution.

Advocates and program designers were already issuing opinions about optimal size. Bedner (1974), writing from the experience of programs in Denmark, Sweden, and Holland, wrote that:

> "The retarded person needs a small number of interpersonal relationships so that those relationships can be accepted as positive stimulation ... The sizes of group homes for children should be from four to six residents ... For adults, the same principles apply. Group homes should be of either three to four or seven to eight persons, but no larger." (p. 33)

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[9] Several research groups are still using derivatives of this scale.

In 1974, Harris, Veit, Allen, and Chinsky (1974) performed studies in one large institution, using direct observation of staff-resident interactions. They started out with an interest in the impact of staff ratio on the amount of direct nurturing interaction between staff and residents. Surprisingly, they found essentially no differences across wards with widely varying ratios. Generally, aides did not interact very much at all with the people living on the wards; moreover, *when the investigators actually added another aide to several wards, the people living there experienced absolutely no increase in interaction. The staff did, however, interact with each other a lot more*.[10]

Harris et al. did find one condition which was consistently associated with higher quantity and quality of interactions: when staff people were alone, working with a small group of consumers. They suggested that large wards should be broken down into smaller units, each staffed by a single aide. They speculated that creating small family-like living units within institutions of whatever size would create higher quality care. Interestingly, this is in effect what happens in small group homes.[11]

Balla (1976) attempted to summarize the state of knowledge about the relationship of institution size to quality of care by reviewing the literature. His review relied heavily on a cross-cultural study (McCormick, Balla, & Zigler, 1975) that used the same measure of quality as King, Raynes, and Tizard (1971), and that obtained similar results. Balla concluded:

> In summary, it seems that from the studies concerned with what may be called the quality of life dimension, care is more adequate in smaller community-based institutions, especially in those under 100 population. However, the number of studies upon which these conclusions are based is small indeed. In addition, the literature reviewed provides almost no indication of an answer to the critical question of whether there are structural aspects of large institutions that tend to coerce practices leading to poor quality of care. The most appropriate conclusion from this literature review would seem to be that the data base if far too scanty at this time to construct a social policy based on empirical evidence.

Balla's work considered only institutions – in no way did it compare quality in institutions versus small community settings. Although Balla found weak evidence that the quality of life in smaller institutions was better than larger

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[10] This finding, that adding staff did not add quality interaction with residents, was parallel to Kohler's 1927 findings in the Tug of War experiments – adding pullers to Tug of War teams did not add the full strength of the new person, because the other team members tended to relax slightly when new members joined the team.

[11] This, in turn, relates to the Class Size finding that the large education achievement gains only occur in the smallest groups sizes – 1 to 3 – more in the nature of tutoring, with one to one interaction most prominent.

institutions, his work shed no light at all on the issue of very small or family scale community homes.

O'Connor (1976) took the next step, and did compare smaller homes to the larger institutions. Analyzing data from a national survey of community living situations, O'Connor reported that homes with fewer than 20 residents were more "normalized." In contrast to homes serving more than 20 residents, there were fewer security features, personal effects were more visible in peoples' rooms, and there was greater privacy. "Size" was the only factor that distinguished those group homes which were considered "normalizing."

Heiner and Bock (1978) were the first to attempt to relate setting size to individual behavioral growth and development. Using a large data base on Minnesota's group homes, all certified as ICFs/MR, they tested whether size made any differences in developmental growth, residential stability, and costs. They used data on 163 people from 1975 and 1976. The 250 people were living at 18 group homes, for an average size of 14 people. There were 4 homes of size 6, 8 of size 8, and 5 of size 15.

The behavioral measure was the Minnesota Developmental Programming System (Bock, 1974), a well known scale with inter-rater reliability of .84 and test-retest of .94. The best developmental progress was seen in the 8 bed homes. However, that finding may have been related to the fact that 5 of the 8-bed sites served young children, and their progress was much greater than that seen among the adults in all the other homes.

The authors checked these results against formal reports of functional improvement maintained by the Department of Health. Their data base included 141 people in 5-10 bed homes, 192 people in 11-16 bed homes, and 86 people in 20-26 bed homes. The data showed that people in facilities larger than 20 exhibited less progress than the other two groups. Reported progress in personal hygiene and emotional behavior was slightly higher in 11-16 than in 5-10 bed homes, and progress in communication was highest in the 5-10 bed homes. These differences were small and no tests of statistical significance were reported.

Heiner and Bock detected no variation in residential stability by size. They also performed multiple regression analyses on cost, individual, and programmatic data. They reported that group home costs did not vary systematically by size.

From the various threads of evidence, Heiner and Bock concluded that *"The data support the conclusion that smaller (8 bed) facilities tend to produce positive client changes at a better rate than larger ones; and, do so without significantly higher costs."*

Heiner and Bock also summarized their impressions of the advantages and disadvantages that might go with small and large group homes. Their impressions came from the small group literature, the organizational effectiveness literature, and their direct experience with group homes.

SMALLER GROUPS (2 TO 10 PEOPLE)

ADVANTAGES
1. Greater actual participation for all members
2. Participation is more evenly distributed throughout the group
3. Evaluated more positively by group members
4. Fewer signs of tensions
5. Less strict conformity to group norms
6. Better performance on basic skills (cognitive and sensorimotor) as a result of small group instruction
7. Better performance on conjunctive tasks
8. Higher staff expectations
9. Greater opportunity for people with intellectual disabilities to model normal staff behaviors

DISADVANTAGES
1. Limited human resources
2. May be more expensive in terms of maintenance costs

LARGER GROUPS (10 TO 20 PEOPLE)

ADVANTAGES
1. Greater number of human resources
2. Increased problem solving ability
3. Greater opportunity to meet attractive others
4. Better performance on additive and disjunctive tasks
5. Greater anonymity for shy individuals (this could also be considered a disadvantage)

DISADVANTAGES
1. Organization may be a problem
2. Subgroups are likely to form causing greater potential for conflict
3. Relatively fewer members participate. The group is often dominated by one or a few powerful individuals
4. Strict conformity to normative group pressures is more likely
5. Organizational and interpersonal effects may interfere with the effective use of resources
6. Disciplinary control is exercised more often

Raynes, Pratt, and Roses (1979) reported that the presence of more than one staff person on a residential unit systematically decreased the frequency of

informative remarks to consumers. They suggested either very small settings or settings with very small subdivisions, as did Balla (1976).[12]

Landesman-Dwyer, Sackett, and Kleinman (1980) studied the effects of size in group homes in the state of Washington. Clearly skeptical of the claims that "small is good," Landesman-Dwyer and colleagues conducted direct observation studies of 240 people with intellectual disabilities, and of 75 staff members, in 20 group homes. The people were relatively highly capable, in that only 20% were labeled severely or profoundly retarded. The smallest group home had 6 people, and the largest had 20.

The authors found that staff behavior was much the same across all sizes of home. This was a surprising finding, because the smaller homes had significantly higher staffing ratios. However, their finding corresponds to the earlier Harris et al. (1974) research. Enriching the staff ratio does not seem to lead to more teaching, nurturing, or interaction with the people in the home.

Resident behaviors did vary somewhat with size, but Landesman-Dwyer et al. concluded that most of the differences were either unimportant or explainable from things other than size. One difference they did emphasize was the people in larger group homes engaged in more social behavior by "about 4 to 5 percent" than did those in smaller homes. The people in the large group homes interacted with more peers, were more likely to have a "best friend," and spent more time with their best friends than did people in smaller group homes. These socially oriented findings mirrored their findings reported a year earlier from a different study (Landesman-Dwyer, Berkson, & Kleinman, 1979).

Landesman-Dwyer et al. concluded: *We did not find evidence of any dramatic effects of group home size in community based facilities that ranged from 6 to 20 residents. Social relationships did appear significantly enhanced as the number of peers increased, suggesting that extremely small group homes may be socially limiting.*" This article was then criticized by advocates of smaller settings from a variety of perspectives, primarily that the range of sizes excluded the family-like settings being developed widely in many states – that is, below size 6.

Baroff published a review article in 1980, which examined the same literature reviewed by Balla (1976). Baroff reached conclusions quite different from those of Balla. First examining the class of studies he called "resident-

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[12] This finding paralleled findings from the Tug of War and other organizational psychology studies.

oriented versus institution-oriented care practices" studies, he noted that *"What we have then is the curious finding that size* is *and* is not *important."* He was referring to the fairly consistent finding that size made a difference between types of settings, but not within.

Baroff re-examined the finding of Klaber (1969), that a 1 staff to 10 residents ratio was inherently better than 10 to 100. Baroff suggested that it might be most reasonable to admit outright that this was exactly what small community settings accomplished. Furthermore, he questioned the then-common thinking that the smaller groupings should be achieved simply by subdividing existing institutions. Baroff claimed that this would still keep people isolated from the rest of society, and that would not be in keeping with modern values, particularly integration.

Baroff expressed the opinion that the small residential facilities offer individualization possibilities which are inherently more difficult to realize in larger group care settings. He also suggested an inherent difference in the way caregivers view their roles: *"The institutional attendant is commonly one of a large number of employees. He sees other attendants come and go and this conveys to him his own sense of interchangeability. He does not, in fact, have the same degree of personal responsibility for the residents in his care as the foster or group home parent" (p. 114).*[13]

Baroff's summary of the second type of literature, that which relates size to behavioral growth and development, was simpler than Balla's:

> The current literature consists of eight studies which relate behavior to size. Seven of them show some advantage to the smaller setting and one shows no difference. None show any advantage to the larger ones.

Baroff's overall conclusion was also simpler than Balla's:

> It does seem that size makes some difference. Smaller residential settings, typically serving not more than 10 persons, can necessarily be more responsive to individual needs. Moreover, their location in normal community residential neighborhoods allows for easy access to the range of community experiences that can enhance social, vocational, and recreational skills and can foster greater independence. These same experiences are much more difficult to provide in the more physically isolated and autonomous setting of the large institution.

It is of particular interest that Baroff's review still gave no guidance about the quality of the smaller settings. He urged that size stay below 10, but that was

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[13] This is clearly related to the sociological finding of increasing anonymity in larger groups, and the organizational finding of the phenomenon of "free riding."

all. The literature up to this point had nothing to say about quality and size in the range of 1 to 10 beds. No one had compared one versus three, or three versus six, or six versus eight.

However, the earliest suggestions that quality could be enhanced simply by subdividing large institutions into smaller subunits had been strongly questioned. Up to this point, researchers said, there was little support for such a claim – and more importantly, there was a need for more evidence on relative quality within family-scale community homes.

Investigating the quality of staff-consumer[14] interactions in day programs in England, Dalgleish and Matthews (1981) found that engagement was likely to be lower in a large room and when a large number of consumers are present, but this was <u>not</u> related to the staff-consumer ratio. The key variable was size itself, not the ratio. They speculated that when two groups of consumers plus their associated staff are placed together, the staff from the two groups will talk between themselves, at the expense of communication directed toward consumers. This finding was, once again, consistent with the 1969 suggestion of Klaber and the 1974 finding of Harris et al.[15] But Dalgleish and Matthews further pointed out the disturbing fact that, while many people had moved their homes from institution to community, nearly all of them were spending their entire day in a very large room with dozens to hundreds of other people with intellectual disabilities.

There has been a strong and vocal component of the disability field working to defend large settings – even the very large ones. The "Voice of the Retarded" is the most prominent and influential among them.[16] McCann (1984), a policy-oriented ally of that group, wrote an advocacy document entitled "The Sanctity of Size" for circulation in Louisiana. In it, he strongly questioned the size evidence, although not very thoroughly. It was a direct response to a bill introduced by Senator Chaffee of Rhode Island. The bill contained a provision that group homes receiving federal support could not exceed three times the average family size in the area of service. This would limit group home size to between 9 and 12 people. McCann concluded that there was no hard evidence that size made any difference, no good evidence that community placement was associated with any benefits, and

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[14] The terminology used in their article is maintained here for clarity. Modern customs utilize different terminology.
[15] This phenomenon has been reported in this and other literatures frequently. This author has satirically called it the "softball team effect" - meaning that as soon as there are enough staff to form a softball team, interactions with the people living in the home will drop precipitously. At some critical mass point, workers will tend to interact with one another rather than with the people served, many of whom do not use verbal forms of communication.
[16] http://www.vor.net/about-vor/general-information/why-we-still-use-mental-retardation

no reason to believe that the quality of care in institutions was anything less than excellent. The document was never published in any book or journal, but it was widely circulated among proponents of institutional care.

Felce, de Kock, and Repp (1986) studied changes in the lives of 12 people in England, 6 of whom moved from institution to small community homes, while the other 6 remained in the institution. The 12 people were the most severely handicapped in the service area. The results included major improvements in the adaptive behavior of the consumers who moved to the community. Results in the community settings also revealed greatly improved staff performance in terms of interacting in positive ways with consumers. The authors wrote,

> Life in the small homes was characterized by a substantially greater opportunity to run one's own life. Increased domestic activity and personal and leisure engagement more than doubled nonsocial participation. Considerable staff effort in delivering antecedents and consequences was directed to eliciting such activity levels, particularly among the most handicapped individuals. As a result, social interactions between clients and staff also showed substantial improvement.

The authors commented directly on the size issue, noting the continuing interest of researchers. They found it particularly significant that the small homes had smaller rooms, and more of them, than the institution. The number of rooms tended to favor creation of the situation described by Harris et al. (1974), in which one staff person was alone with just one or a few consumers. They believed the changes could be attributed to this reallocation of staff resources into very small groups, to the material enrichment of the environment and its free accessibility, and to job specifications and staff training. They concluded by restating the fact that these major benefits had been observed in the most severely handicapped, longest institutionalized, people.

Landesman (1987) studied the movement of 147 people from one kind of institutional environment to another. The old settings were traditional institutional wards of 40 to 60 beds, dormitory style bedrooms, open bathing and toileting areas, large common living rooms, and clearly identified staff offices, coffee rooms, and storage areas. The new living units were 14-bed duplexes constructed on the grounds of the institution.

The duplexes had 6 to 8 people on each side. People had "single or double bedrooms, places for their own clothes and personal possessions, and private bathing and toileting areas. Each side had its own kitchen (although meals were prepared in a centralized kitchen), dining area, and small living room. The furniture was more home-like and colorful. On the outside, the duplexes appeared

to be attractive single-story brick homes, identified by numbers rather than names, and surrounded by sidewalks, streets, and yards."

Landesman's conclusions were not strongly supportive of a size and quality relationship in terms of staff-consumer interactions:

> In the new duplexes where the assigned staff: resident ratios had been enriched considerably, there was no evidence that this led to increased interactions between staff members and residents. In fact, residents actually spent significantly more time totally alone or without any staff person present than they had in the old halls. (p.114)

Other measures, however, more closely paralleled prior research findings:

> Management practices in the new duplexes were rated as significantly more resident-oriented versus institutional. Similarly, the Caldwell HOME scores reflected significant, although quantitatively small, increases in stimulation. Despite these important changes, residents' daily behavior was not affected dramatically.

This article was of particular interest because it was, in essence, a study of the then-current theory that, if small was good, then subdividing a large segregated and isolated institution into smaller subunits should enhance quality of life. These sorts of "make-believe community homes" have been constructed on institutional campuses many times.[17] Landesman's 1987 study is certainly relevant to the size issue, but what it appears to show is that even size cannot make a definitive impact on quality, if the "homes" are still on the grounds of an institution.

This leads to the somewhat more important speculation that size per se really may not be enough to obtain the full benefits seen in studies of community placement. Genuine community placement includes the important dimension of integration, of being in the presence of people who do not have disabilities. Community placement also includes traveling in the real world, as every person in a group home goes away from the home every weekday, as do most Americans.

In the early part of the Pennhurst Longitudinal Study research,[18] it was found that people living at the institution made significantly more behavioral progress if they attended <u>any</u> kind of day program <u>away</u> from the places where they slept (Lemanowicz, Feinstein, Efthimiou, & Conroy, 1980). The difference was attributed to simple daily stimulation via changes of environmental conditions each day. Generally, at the institution, people who were lucky enough to be in a day activity program would simply walk across campus each day, spend a few hours in

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[17] There is one such project under way
[18] Directed by the present author.

planned activities, and then walk back to the residential unit. This simple activity was associated with significantly greater developmental progress – people who had a 'day program' gained significantly in self-care and independent functioning abilities, while those with no day program did not make any gains at all.

In community living, however, the daily routine involves more than just a walk across campus. It involves taking a car, van, or bus ride every morning to a day program or employment site. Moreover, the vehicle must travel through the "real world," rather than the institutional campus. People must see and be seen to some degree by non-handicapped members of the general public. They see other peoples' homes and staff as they make their rounds. They tend to spend much more time at the day program than they did at the institution. Perhaps these factors, cumulatively, are having the same effect as the simple day activities did at Pennhurst, but more powerfully. It seems reasonable to believe that this more normalized rhythm and routine of daily life, combined with increased stimulation and integrative opportunities, should be associated with enhanced quality of life. The evidence is consistent with such an interpretation.

If this were true, then once again, size *per se* might not be the most important variable. However, the dispersed nature of the community service system, and its use of regular family-size housing stock, forges an inextricable link with size.

More recent literature, however, has significantly changed the picture.

Lakin, White, Hill, Bruininks, & Wright (1990) noted very large differences among states regarding residence size. They found that, although there was an overall trend toward smaller residence size, there was considerable disagreement about the appropriate size range. They were the first to call for a national policy to make community living in small settings more uniformly available across the states.

Burchard, Hasazi, Gordon, & Yoe (1991) examined lifestyle and adjustment in three community residential alternatives. The study included 133 adults with mild and moderate levels of intellectual disability living in small group homes, supervised apartments, and with their natural families. Results of questionnaires and structured interviews with care providers showed that the residence settings supported quite different lifestyles with respect to independence, lifestyle normalization, and integration. The authors inferred that size of the home was one of the important factors in life quality, engagement, and integration.

Felce & Repp (1992) studied the community home model in England. They compared the small home model to institutional settings and larger community units. The small homes were found to produce beneficial client functioning and high levels of staff/client interaction. The paper concluded that interaction effects were possibly more powerful than single effects, thus illustrating the continuing difficulty of disagreggating the impacts of size, staffing, and individual characteristics.

In 1992, this author completed a doctoral dissertation which included size-related analyses of three large databases: the National Consumer Survey (Conroy, Feinstein, Lemanowicz, Devlin, & Metzler, 1990), the Pennhurst Longitudinal Study (Conroy & Bradley, 1985), and Connecticut's CARC v. Thorne Longitudinal Study (Conroy, Lemanowicz, Feinstein, & Bernotsky, 1990). Those analyses revealed strong evidence of a relationship between size and quality, with qualities of life and service falling off significantly above 4 residents, and sharply above 6 residents. That study did not, however, include consideration of costs of care.

Schalock, Lemanowicz, Conroy, & Feinstein (1994) conducted a multivariate study of quality of life among deinstitutionalized people in Connecticut. They controlled mathematically for individual characteristics and other complicating variables, and found that smaller homes in the community were associated with higher ratings of quality. Later the same year, Schalock (1994) gave more detailed findings from the same database, and reported that size was an important variable but the level of residential supervision was not important beyond the simple factor of the size of the home.

Felce & Perry (1995) explored the complex relationships between staffing levels and size of the home, and were unable to uncouple the two factors. Taken together, smaller homes with richer staffing ratios were naturally superior. They studied 15 housing services in South Wales, and examined complex relationships among ecological variables and resident characteristics. They reported that *"The relative benefits of small, community-based housing services over institutional and larger community settings were confirmed by the Welsh data."*

Tossebro (1995) produced an important study entitled *"Impact of size revisited: Relation of number of residents to self-determination and deprivatization."* Working in three Norwegian countries, he analyzed the impact of number of residents in facilities for people with mental retardation on two quality

of care measures, deprivatization and self-determination. It was hypothesized that the size of the facility would make little or no difference, whereas the size of the living unit will have a significant impact, but only within a narrow size range. *[Subjects]* were 591 residents (aged 18-67 yrs) of 36 facilities in 3 Norwegian counties. Data were based on staff interviews. Results supported the hypotheses: Living unit size had a substantial impact on self-determination and deprivatization in the 1 to 5 bed size range but not among larger units. According to a later review by Stancliffe (1997),

> Tossebro (1995) has helped to clarify this somewhat confusing picture. He found no association between self-determination and *facility* size (a number of facilities were made up of multiple living units) but a linear relationship with *living-unit* size. There was a strong correlation (r=.48) between self-determination and living unit size for small settings of 1 to 5 individuals but no relation (r=.05) for larger units of between 6 and 16 persons.
>
> Tossebro's (1995) findings are of considerable importance in interpreting research on living-unit size and point to the need to expand the meager research base on size effects in the 1 to 6 person size range that is characteristic of small community settings. The generalizability of Tossebro's findings is limited because all of the living units he examined were classified as institutions. Some very small facilities (4 to 9 persons) were located on an ordinary street, but "the smallest living units were largely located on institution grounds" (J. Tossebro, personal communication, December 4, 1995). One other limitation was that Tossebro assessed self-determination using a single staff rating of each person's freedom of decision. If his findings can be replicated in a community setting, using a more detailed, psychometrically sound measure of choice that does not rely solely on staff perceptions, the generality of his conclusions will be greatly enhanced.

Conroy (1996) used a matched comparison design for 51 pairs of people in community homes in Pennsylvania, and showed that many qualities of life were higher in smaller community homes, other things being equal. Moreover, the total costs of services and support were lower in the smaller homes. The study was complicated by the fact that the settings were associated with different funding streams, and were regulated differently. The larger settings were generally in the ICF/MR,[19] funding stream, and the smaller ones were funded via the Home and Community Based Services Waiver program. Because of the mixture of size and funding variables, the study provided a useful piece of evidence, but could not be definitive.

Perhaps the most significant study of the 1990s was performed by Stancliffe (1997). His article, entitled *"Community living-unit size, staff presence, and residents' choice-making,"* examined the impact of size of residence on residents' opportunities for choice among Australian adults with mental retardation who lived in staff-supported community residences housing one to five residents. Significantly greater choice was exercised by individuals living in smaller settings,

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[19] ICF/MR stands for Intermediate Care Facilities for [People With] Mental Retardation.

even when personal characteristics of individual residents were controlled statistically. Staff presence (number of waking hours when staff were present in the home) was confounded with living unit size. Analyses including both staff presence and living-unit size revealed strong effects of staff presence, with more choice displayed in settings with longer periods when no staff members were present. Size effects were less evident once the variability associated with staff presence had been accounted for. Results suggested that both staff presence and living-unit size are important predictors of choice. According to Stancliffe,

> "Together with the results reported by Burchard et al. (1991), Conroy (1992, 1996), Schalock (1994), and Tossebro (1994), the present findings provide a strong case for asserting that, for small community residences, smaller settings (which often have lower levels of staff presence) are associated with substantially better client outcomes, notably choice. Although size was confounded with staff presence and/or residence type (e.g. ICF/MR status) for some of the studies in this list, taken together they offer consistent support for the proposition that size matters in small community residences. Looking at the residence-size literature as a whole, one is struck by the almost complete absence of contrary evidence. Although a number of studies of larger residences have reported no significant size-related effects, almost none have reported better outcomes in larger settings (e.g., Landesman-Dwyer et al., 1980).

Stancliffe, Abery, & Smith (2000) performed a study in which they attempted to go "beyond living-unit size and type"[20] They investigated personal control, an indicator of quality based on self-determination, among 74 adults in Minnesota community homes. They used advanced mathematical techniques to try to tease out the potential effects of individual differences, characteristics and funding streams, and found a clear and rather simple hierarchy. Personal control was highest is semi-independent homes, next highest in Home & Community Based Services Waiver homes, and lowest in community homes funded via the Intermediate Care Facilities for [people with] Mental Retardation (ICF/MR) program. Moreover, the findings held up even within the smallest range of sizes, from 1 to 5 people.

A meta-analysis of behavioral outcomes of deinstitutionalization was reported by Kim, Larson, & Lakin (2001). Their review of more than 30 studies showed that people tend to grow and learn and develop independent functioning skills far more rapidly and effectively in small community homes than in large institutional ones. Their abstract stated:

> A summary of studies conducted between 1980 and 1999 on the changes in adaptive behavior (daily living skills) associated with leaving and staying in institutions. It reviews over 30 studies that followed people from 6 to 72 months after leaving, some

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[20] Stancliffe, R.J., Abery, B.H., & Smith, J. (2000). Personal control and the ecology of community living settings: Beyond living-unit size and type. *Mental Retardation, 105*, 131-154.

with comparison groups that stayed, some just longitudinal and few that make both comparisons. The consistency of the findings to the benefit of the leavers is extremely impressive.

Cross (2002) reviewed the research on size, and reported to the Australian Capital Territory's Department of Disability, Housing, and Community Service that:

> There has been considerable debate within the literature as to whether 'size' is a key variable in successful and unsuccessful living outcomes. Generally size alone is not considered to be the powerful determinant of outcomes, however there is substantial evidence that size is a factor. Several major studies show that reduction in 'institutional' practices (by staff, and consequently by clients) is most likely to occur when size is small. In some studies this is considered to be 3 or less, in others 4 or less.

During the past decade, a new resource for databased analysis of the issue of size has been constructed. The National Core Indicator project[21] was designed to collect data on qualities of life and service among people with intellectual and developmental disabilities in residential settings. It gradually grew to include participation of more than 20 states.

Recent analyses, reports, and publications shed light on variations in setting size related to quality indicators including choicemaking, loneliness, and liking one's home. The NCI data have also been used to explore relative cost of two kinds of community funded settings, and this analysis was also related to the size of the home.

Because the NCI data are so new and significant, they are treated in some detail in the *"New Analyses from the National Core Indicators"* section of this report.

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[21] See the National Core Indicators website at http://www2.hsri.org/nci/

That summarizes the research literature on the size of group homes in developmental and intellectual disabilities. Since 2000, there have been reports of trends, but we found no further research investigations. Lakin, Prouty, & Coucouvanis (2006) reported on 'changing patterns in size of residential settings,' updating their earlier reports. They had found that in 1977, the average residence for citizens with intellectual & developmental disabilities was 22.5. By 1994, it was 4.9. From the year 2000 to 2005, the preference for small settings continued. In 2000, 39% of people in residential settings were in size 1 to 3 person homes, and in 2005 this figure had increased to 45%. The figure below shows the most recent size distribution of residential settings for people with developmental and intellectual disabilities in America.

Residence Sizes in America
From Lakin et al., 2006
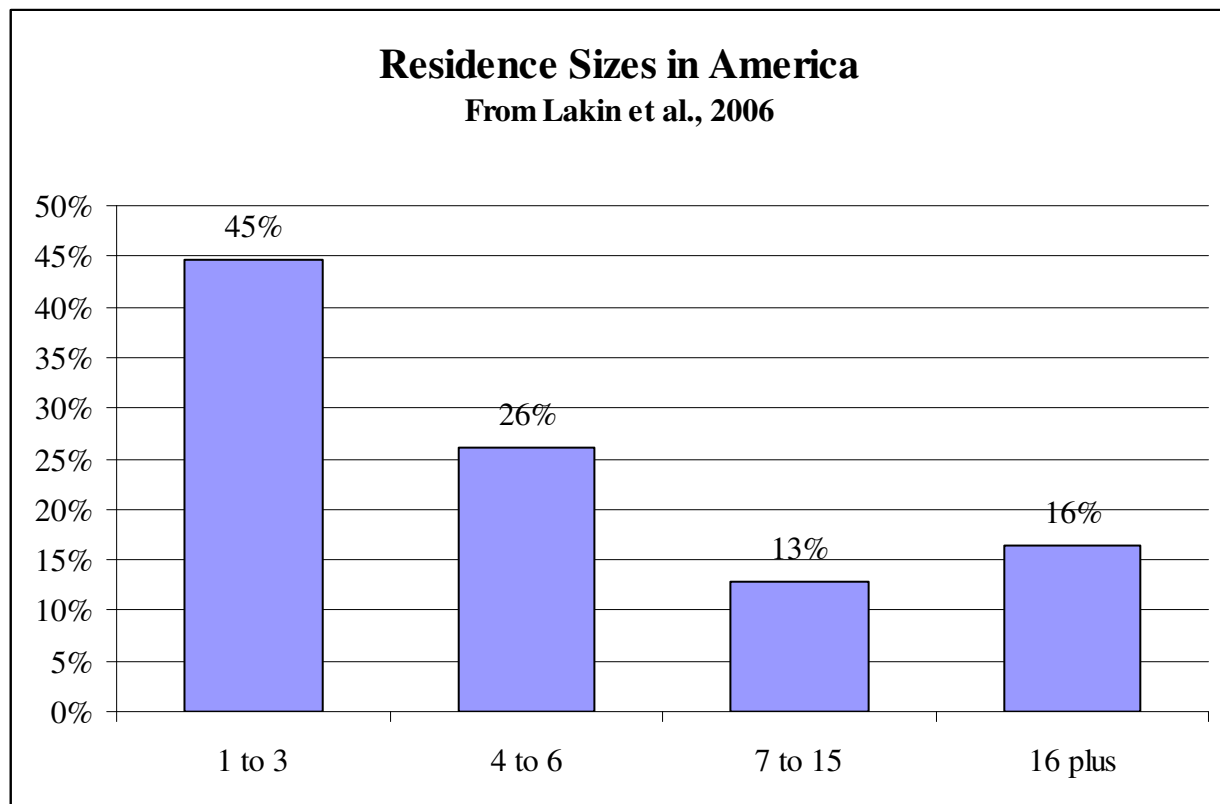
In 2005, the total number of people in these residential settings was 411,215. The average cost of the large institutional settings, above 16 people, was more than $200,000 per person per year. The average cost of the small community settings was approximately half of that figure. Clearly, this was an issue with considerable policy import.

The Group Size Issue in Residential Programs for People with Disabilities: New Research

In 1992, we analyzed data from the National Consumer Survey, the Pennhurst Longitudinal Study, and the Connecticut <u>CARC v. Thorne</u> Longitudinal Study with regard to size and quality (Conroy, 1992), and found strong evidence of a direct relationship. That investigation would have benefited from further analysis of small settings, and it did not include costs. Here we have analyzed newer data to explore the size-quality issue, and have included large scale data on costs.

The analyses presented here are primarily offered in graphic format, without complex statistical descriptions, although those are available and all the relationships depicted in the graphics are 'statistically significant' at very high levels. The aim of this presentation is to show whether or not there is a clear, simple, consistent relationship between qualities of life and the size of a group home.

To reveal the answer, we present graphs of quality by the size of the homes across the studies and across many indicators of quality – individualized and person-centered support practices, perceived quality of life, power & control, integration, physical quality of the home, normalization, and individual behavioral progress over time. The number of graphs presented could be overwhelming, but they are all designed to show whether qualities really do vary with size – and are therefore easy to interpret.

The evaluation, research, and quality assurance work we analyze here comes from long term projects in California, Indiana, Oklahoma, Michigan, and the National Core Indicators efforts now under way in more than 20 states.

We tracked the progress of deinstitutionalization in California from 1994 to 2002, and produced more than 30 formal scientific reports on quality. By the end of the 'Coffelt Quality Tracking Project' there were just over 2,400 people being visited annually, face to face, with collection of multiple measures of quality. The studies also included mail surveys of every known family every year, and a quality feedback system to alert local authorities both to situations of concern and situations of unusual merit.

Indiana's progress away from institutional models was tracked from 1997 to 2001, and included direct data collection with more than 600 individuals in their

homes, both before and after movement from institution to community. There were 10 formal research reports issued.

Oklahoma's Quality Assurance Project began in 1992, and continues to the present. It was focused on the approximately 1,000 people who moved out of the Hissom Memorial Center when it closed under court order, but at times included more than 3,500 Oklahoma citizens with disabilities in community settings. There have been more than 30 formal reports arising from this work, which is probably the largest and longest lasting effort to track community quality in the nation.

In Michigan, as part of our research on self-determination for the Robert Wood Johnson Foundation (Conroy et al., 2002), we visited more than 400 potential participants in 1998. Then in 2001 and 2002, we re-visited more than 200 of them, measuring many aspects of quality of life and service.

The National Core Indicators project (http://www2.hsri.org/nci/) is an attempt to collect consistent data on community residential settings across state lines. This is the first long lasting undertaking of its kind. It has recently reached the magnitude at which useful analyses of issues like the size of the home can be conducted. We report on the findings of the NCI team with regard to size here.

California's Coffelt Quality Tracking Project

The California measures included a scale of individualized practices in the home. The scores on this scale do vary with size of the home. The data from 2002 show the pattern clearly, with larger homes showing less individualization.

Individualized Practices Scale Scores
CA 2002 N=1883

Points Out of 100

Size of Home	Score
1	93.3
2	85.9
3	78.7
4	69.2
5	68.7
6	69.2
7	69.2
8	69.0
9	75.5
10	73.2
11 plus	70.7
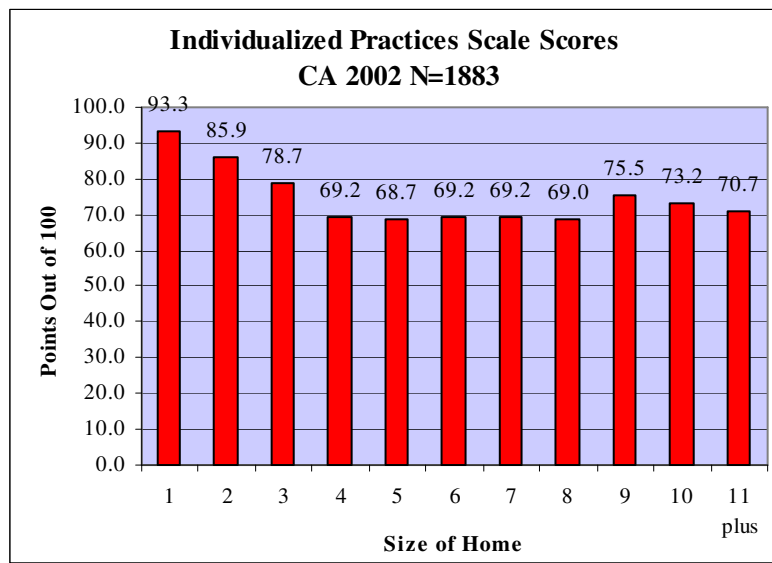
The frequency of integrative activities was measured simply as the number of times per month that each person 'got out' of the home for community outings. The size effect was evident.

Integrative Activities Scale (Outings Per Month)
CA 2002 N=2017

Points Out of 100

Size of Home	Score
1	62.5
2	50.2
3	58.6
4	34.9
5	31.6
6	22.7
7	28.3
8	29.1
9	31.4
10	40.8
11 plus	27.4
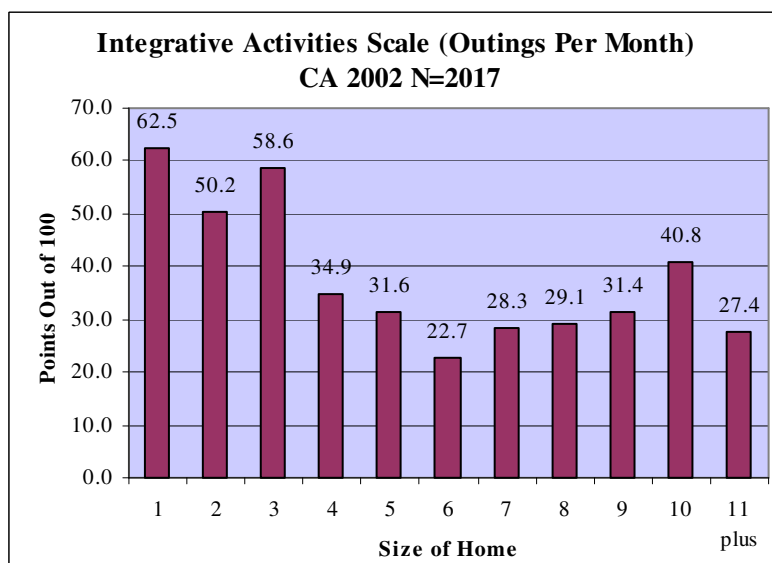
A measure of individual power and control, the Decision Control Inventory, was developed for the research on self-determination, and is highly reliable. In California, opportunities to exercise choice were highest in the smallest homes.

Self-Determination Scale Scores
CA 2002 N=2017

A bar chart with x-axis "Size of Home" (1 through 11 plus) and y-axis "Points Out of 100" (0.0 to 90.0). Values: 1 = 78.6, 2 = 75.0, 3 = 68.4, 4 = 53.8, 5 = 47.8, 6 = 42.7, 7 = 52.1, 8 = 47.9, 9 = 43.3, 10 = 56.5, 11 plus = 53.2.
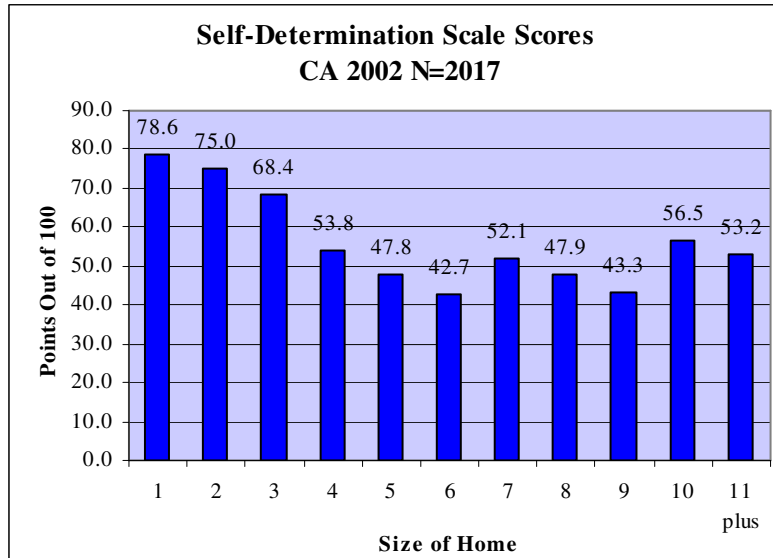
On every visit, an attempt was made by our data collection 'Visitor' to directly interview the focus person. Many people in community residential settings were unable to relate their experiences verbally, but for those who could, the data showed a clear pattern.

Personal Interview Quality Of Life Scale Scores
CA 2002 N=523

A bar chart with x-axis "Size of Home" (1 through 11 plus) and y-axis "Points Out of 100" (70.0 to 95.0). Values: 1 = 89.9, 2 = 84.5, 3 = 85.9, 4 = 80.3, 5 = 78.7, 6 = 77.8, 7 = 76.8, 8 = 78.3, 9 = 83.8, 10 = 79.3, 11 plus = 79.5.
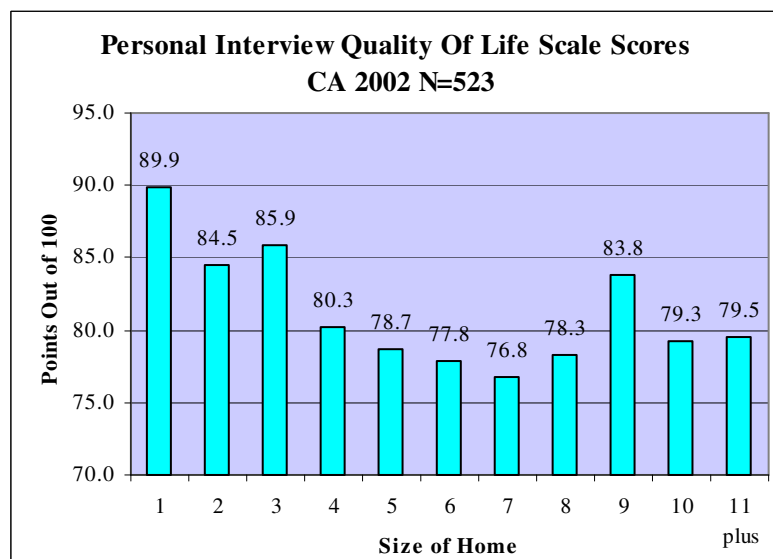
The California battery of instruments included a measure of the physical quality of the home. Here is our first contradictory finding. Our data collection

Visitors found, on the average, that larger settings were somewhat higher in qualities such as orderliness, cleanliness, and spaciousness. Taken all together into a single overall scale, the pattern showed a tendency for larger settings to score slightly higher.

Home Physical Quality Scale Scores
CA 2002 N=1883

Size of Home	Points Out of 100
1	59.5
2	58.0
3	62.5
4	59.0
5	63.6
6	66.9
7	64.3
8	70.0
9	74.2
10	80.7
11 plus	65.8
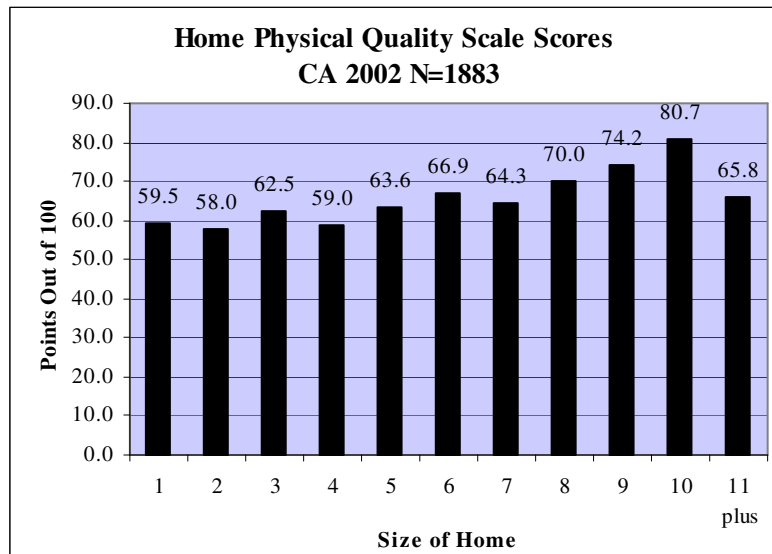
The California work also included our 14 item scale on perceived qualities of life. This simple one page scale asks individuals (and the support workers or family members who know them best) how good or bad their lives are – and also how good or bad their lives were before moving to their current home.

Quality Of Life Scale Change 1 Year
CA 2002 N=1094

Size of Home	Points Out of 100
1	49.9
2	49.4
3	49.4
4	36.8
5	40.2
6	38.2
7	38.2
8	35.8
9	31.5
10	43.4
11 plus	40.1
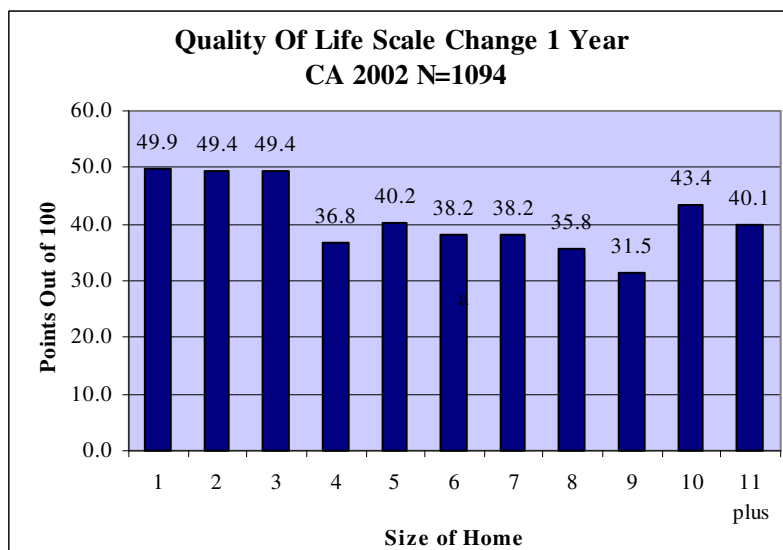
The graph shows perceived change in quality, from "Then" to "Now." The highest positive changes are in the smallest settings.

We also examined the longest possible time span in the California data, from people living in institutions in 1994 to community in 2001. There were 179 people with complete data from that long span of time. One of the classic indicators of quality of service is behavioral growth. In this case, we measured independent functioning (also called self-care or adaptive behavior) over the years. Breaking down growth in self-care abilities by size, we found that size 3 was associated with the largest positive change.

Growth in Self-Care Abilities
California, 1994-2001, N=179
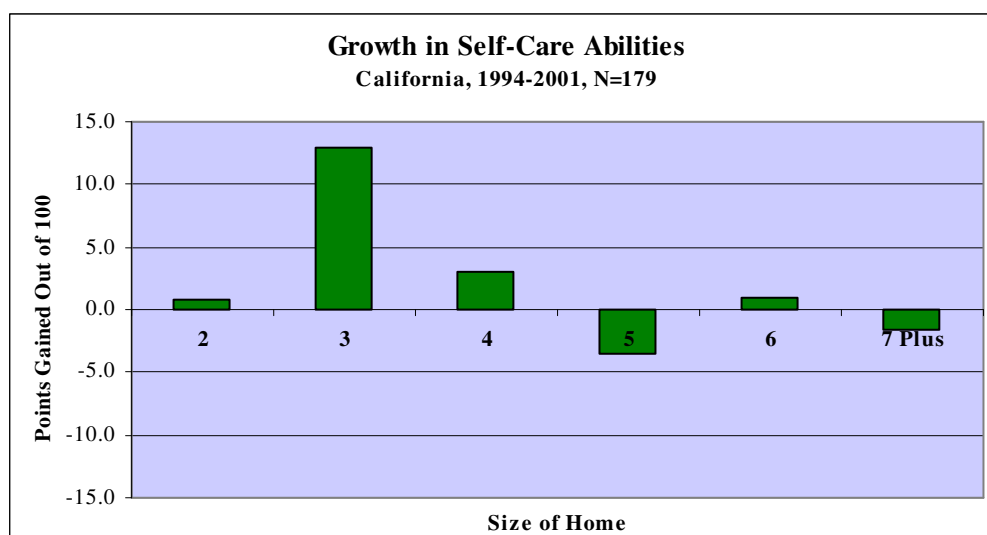
The smaller number of people in this analysis suggests greater caution in interpreting the graph. The suggestion is clear enough, that the smaller settings are associated with greater developmental progress, but the finding cannot be considered conclusive.

Taken as a whole, the California database, here analyzed for the first time about the size issue, leads to the inference that most indicators of quality are higher in smaller community homes.[22]

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[22] The entire body of work in the Coffelt project also showed conclusively that people were 'better off' by practically every measure in the smaller community homes than they were in the large Developmental Centers.

Indiana's Quality Tracking Project

Just as in California, the Indiana work included a scale of individualized practices, and it clearly varied with the size of the home. Indiana was different in that settings above size 5 were almost non-existent, whereas in California, size 6 was commonplace. Hence the Indiana graphs reflect smaller homes.

Individualized Practices Scale, 0 to 100
Indiana, 2002, N=266

Size of Home	Average Score
1	86.7
2	82.3
3	82.6
4	76.7
5 Plus	57.5
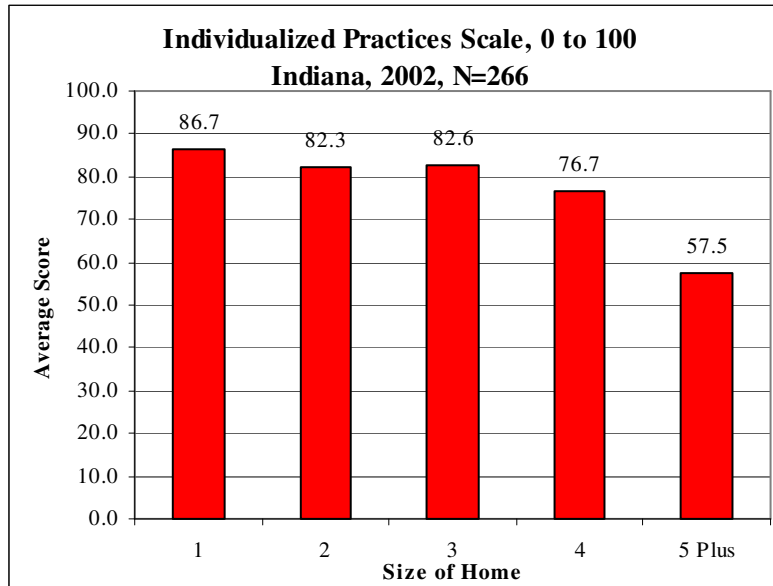
Integrative activities per month were higher in smaller homes:

Integrative Activities Scale
Indiana, 2002, N=266

Size of Home	Average Score
1	34.5
2	38.7
3	29.7
4	20.9
5 Plus	19.1
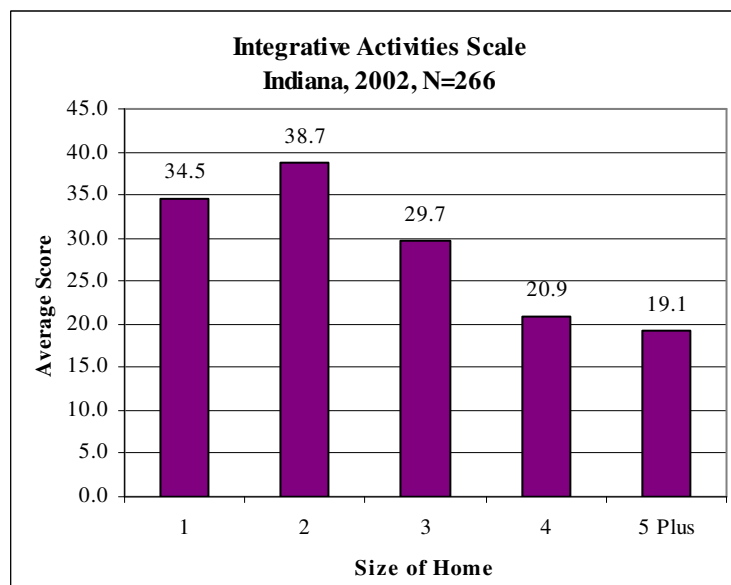
Our reliable scale of individual power and control showed higher scores among people in the smaller settings.

Self-Determination Scale
Indiana, 2002, N=266

The physical quality of the homes varied slightly by size, but smaller was not consistently 'better,' just as we saw in the California data.

Physical Quality of the Home Scale, 0 to 100
Indiana, 2002, N=266
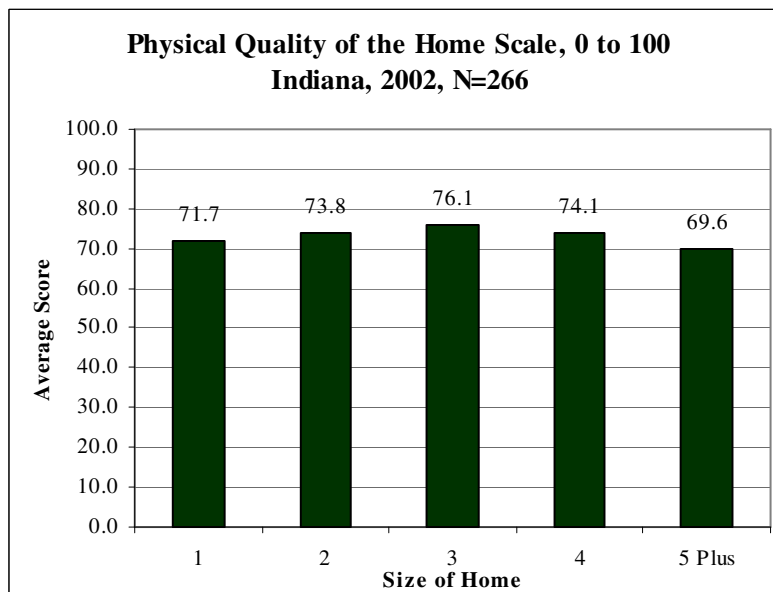
The Indiana work included a classic scale measuring an aspect of quality that was dominant in the field in the 1970s and 1980s, 'normalization.' It showed a pattern of increase up to size 3, and then a decrease as size went up.

Normalization Scale, 0 to 100
Indiana, 2002, N=266

Size of Home	Average Score
1	71.3
2	73.8
3	78.2
4	71.5
5 Plus	63.1
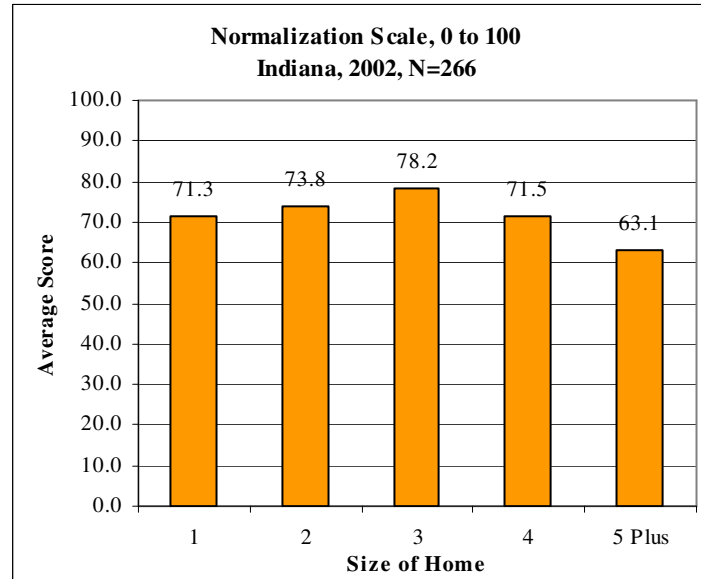
Indiana data provided an opportunity to examine the Qualities of Life scale data across one year. Although this measure relied on memory, and was therefore less definitive than true pre-post data, it did show a pattern of highest improvement in the settings of size 3. Life quality improvements were actually lower in both the smaller and the larger settings – a finding much like the Normalization scale.

Change in Qualities of Life From Last Year
Indiana, 2002, N=266

Size of Home	Average Score
1	71.7
2	73.8
3	76.1
4	74.1
5 Plus	69.6
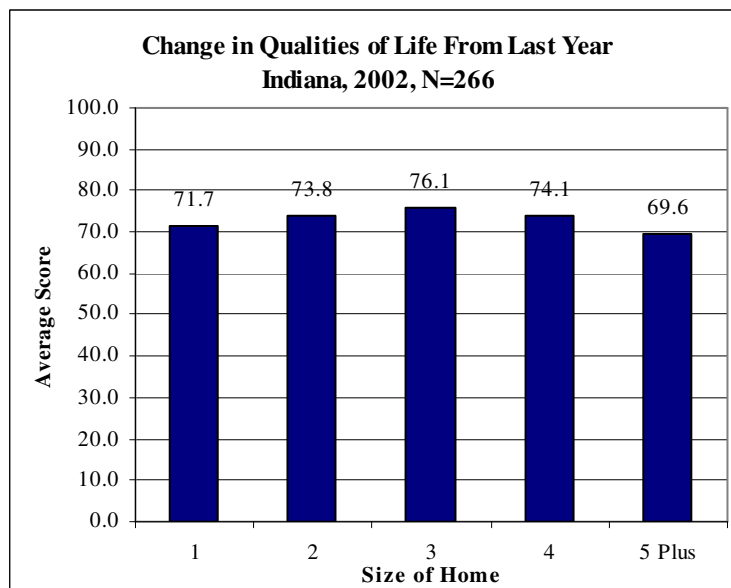
The data from the Indiana work showed a pattern of superior qualities in the smaller settings. Physical quality in terms of order, cleanliness, and roominess were again the exception. Two of the indicators suggested that size 3 was 'better' than smaller or larger settings.

This finding is not yet fully understood, but the next data set, from Oklahoma, should shed further light – because the closure of Hissom in Oklahoma was achieved by movement into the smallest settings yet studied. Instead of 'group homes,' the Oklahoma community settings were characterized as 'supported living.'

Oklahoma's Quality Assurance Project

Oklahoma's deinstitutionalization efforts relied on the smallest community settings. This enabled the closest scrutiny yet on the issue of the size range below 6 beds.

In the 1990s, data from Oklahoma were utilized to construct this now fairly well known graph:

Gains in Self-Care Over 6 Years:
Oklahoma Data, 1990-1996, 850 People
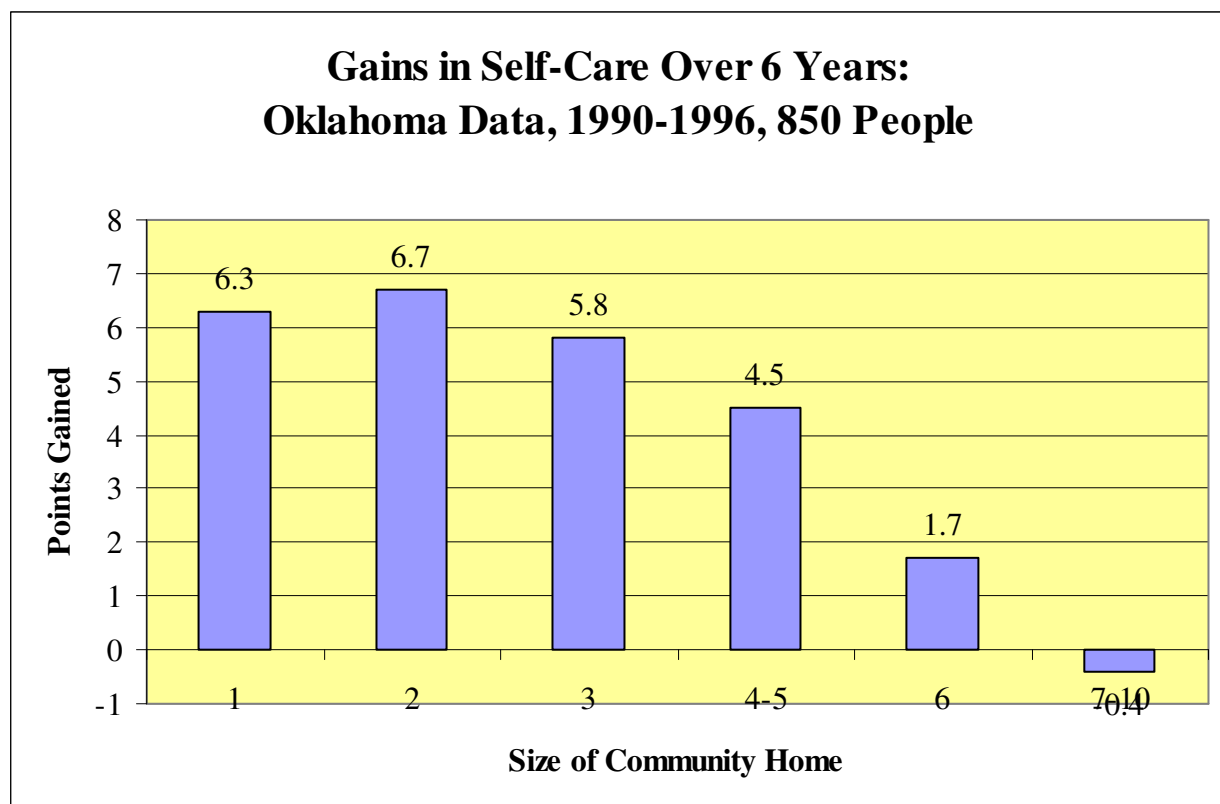
If developmental progress is a desired goal, then the Oklahoma data indicated that people in smaller homes made by far the greatest gains. Above 6 people, gains not only vanished – they tended to move toward losses.

In the year 2000, the Oklahoma data produced insight into the issue of community integration:

Social Integration Measure
OK, Year 2000, N=3145

Events Per Month

Size of Home	Value
1	38
2	36
3	29
4-5	32
6	33
7-15	14
16 plus	6

Size of Home
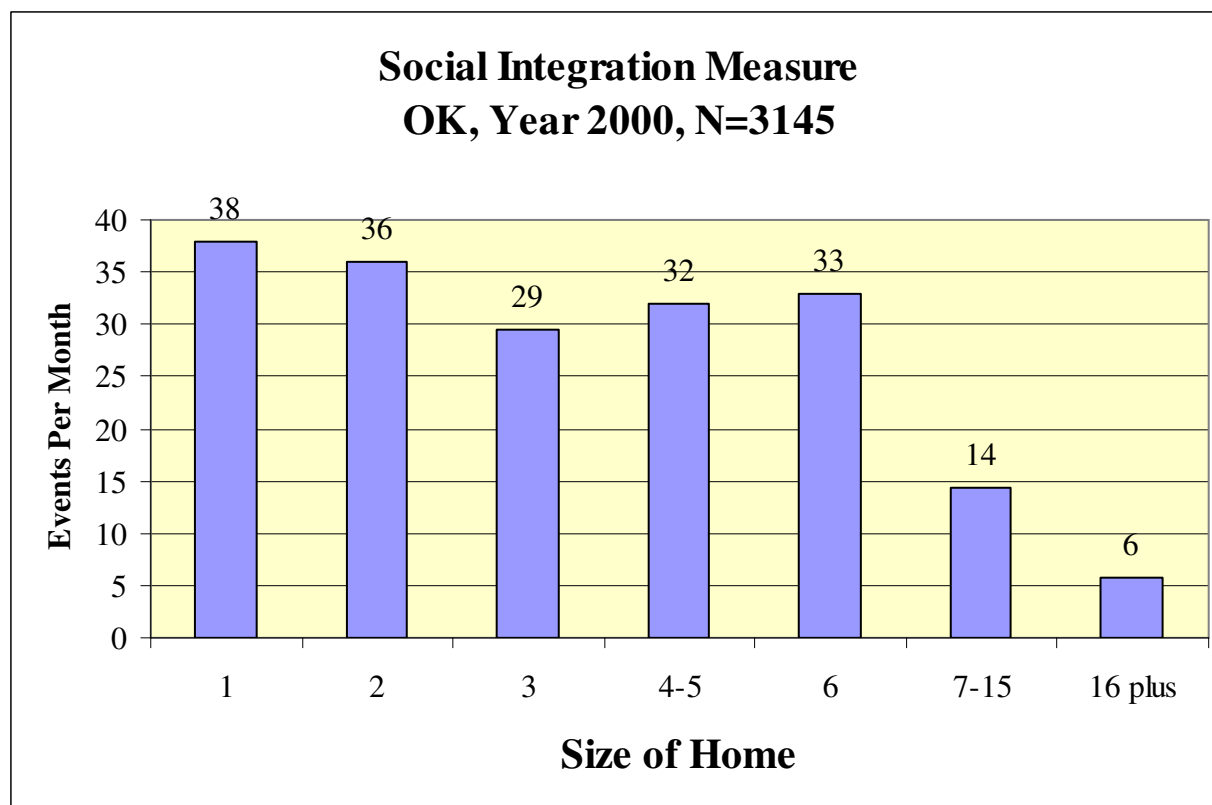
These findings made it very clear that the larger homes tended to cut off community integration.

The most recent round of data collection in Oklahoma (2009) yielded equally powerful findings. The measure of the degree to which Person-Centered Planning was implemented, a strong indicator of individualized treatment, showed generally good practice in setting of 3 beds and below, with a sharp drop-off at 4 beds and above.

Index of Person-Centered Planning
OK, Year 2009, N=563

PCP Scale Avg.

Size of Home	Value
1	80.0
2	77.4
3	81.5
4 Plus	56.7
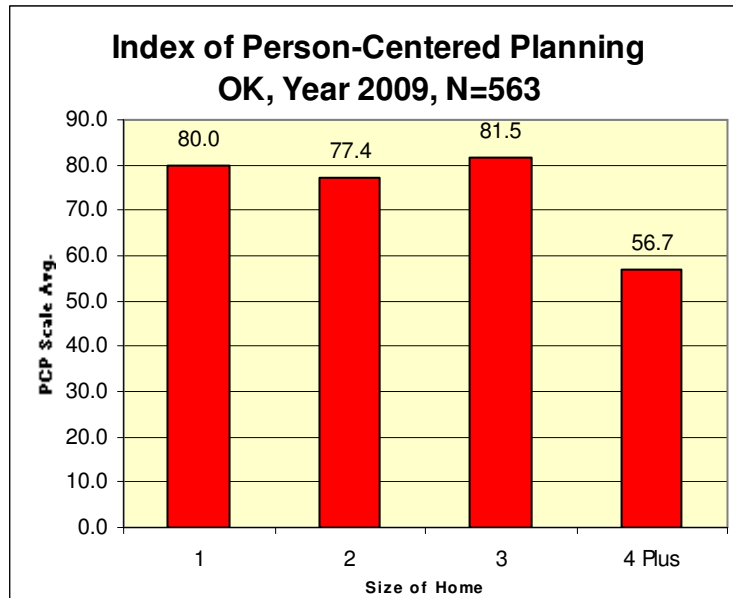
Data on opportunities for integrative activities revealed a peak at size 3, with settings both smaller and larger associated with lower levels of 'getting out and about.'

Consumer Interview: Integration
OK, Year 2009, N=257

Integration Scale Avg.

Size of Home	Value
1	74.8
2	78.4
3	88.0
4 Plus	77.8
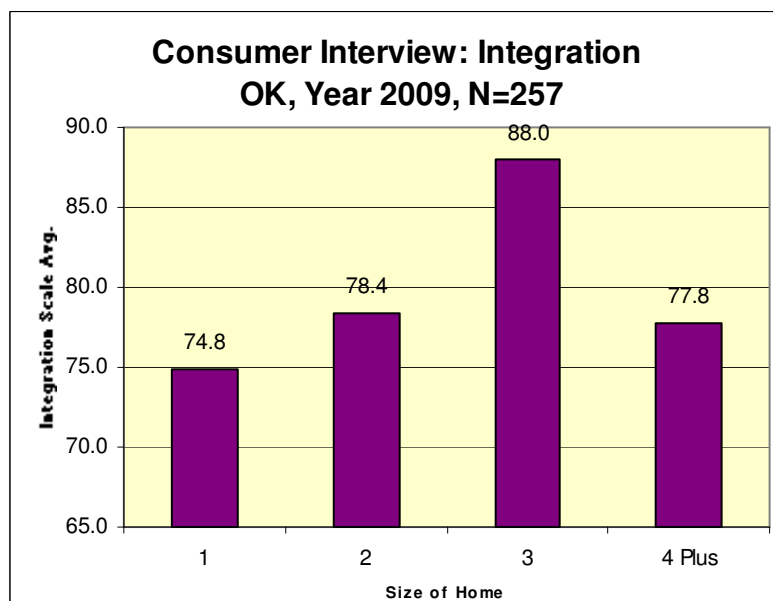
Power and control, or self-determination, was indexed by a shortened form of our Decision Control Inventory, and revealed higher scores in the smaller settings.

Index of Opportunities for Choices OK, Year 2009, N=701

Choice Scale Avg.

Size of Home	Value
1	72.8
2	57.8
3	61.3
4 Plus	51.6
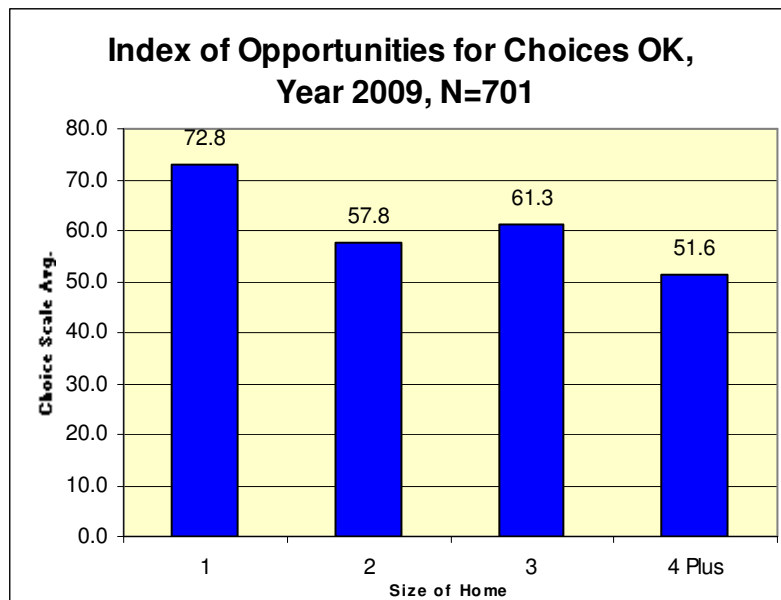
Another index of services was the amount of formally planned and scheduled "services," meaning any staff or professional activity aimed at goals in the person's individual plan. The high point was reached in settings of size 3, again with a sharp drop-off at size 4 and above.

Hours of Service&Support/Month OK, Year 2009, N=702

Service Hours Avg.

Size of Home	Value
1	121.5
2	127.7
3	163.2
4 Plus	67.0
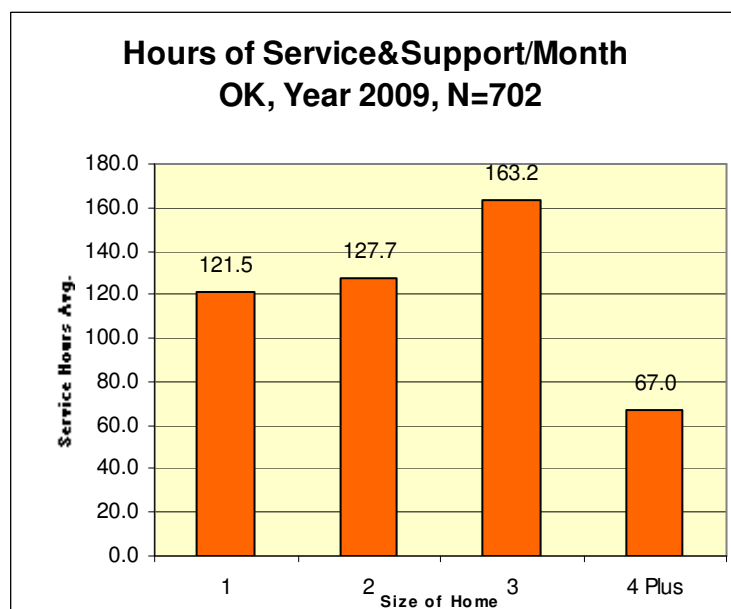
Direct interviews were attempted with every person, on every data collection visit. For the people who were able and willing to respond, the satisfaction with life in the home data showed the highest scores at 3 people, with another sharp drop-off at 4 people and above.

Satisfaction Scale From Personal Interview OK, Year 2009, N=293

Size of Home	Satisfaction Scale Avg.
1	121.5
2	127.7
3	163.2
4 Plus	67.0
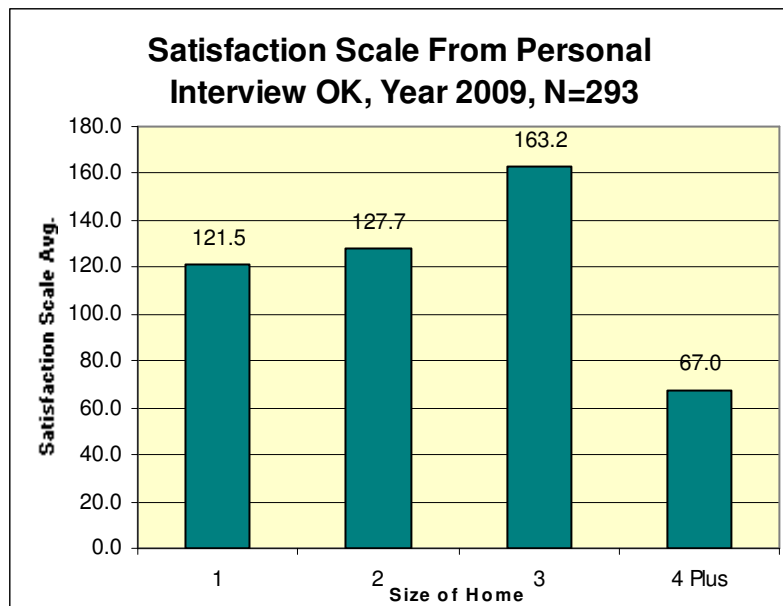
The Oklahoma data included memory. People were asked about the qualities of their lives "Now" and also about quality in their previous homes – for most of the people, this meant the institution. The relation between improvement in life quality and the size of the home was dramatic, and the graph following shows.

Quality of Life Change From Prior Home OK, Year 2009, N=625

Size of Home	Change from Prior Year
1	2.1
2	1.5
3	0.9
4 Plus	0.0
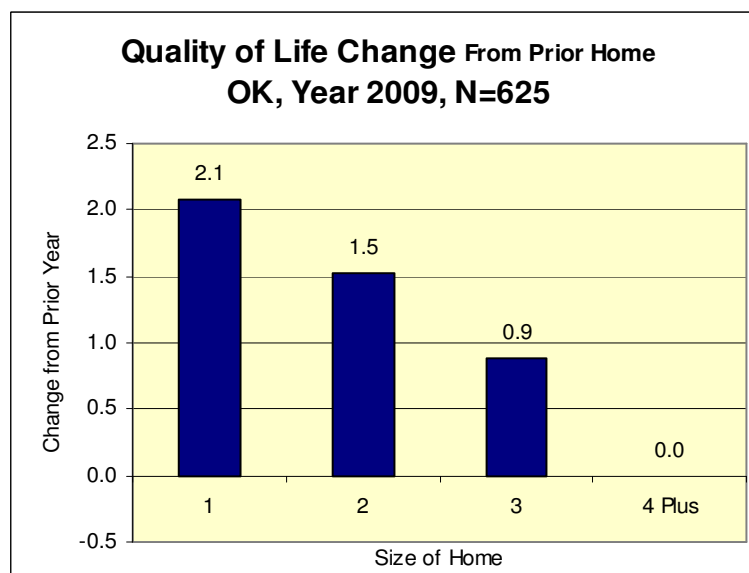
The Oklahoma data tended to show a very strong relationship between community home size and quality. Because Oklahoma's deinstitutionalization efforts relied on very small 'supported living' models, this database provided very

important opportunities to examine quality at the smallest setting sizes. The results appeared to be compelling, in the direction of smaller being 'better' in every way.

Michigan's Early Self-Determination Research

The original self-determination demonstration was conducted in New Hampshire from 1994 to 1996 (Conroy & Yuskauskas, 1996). The fin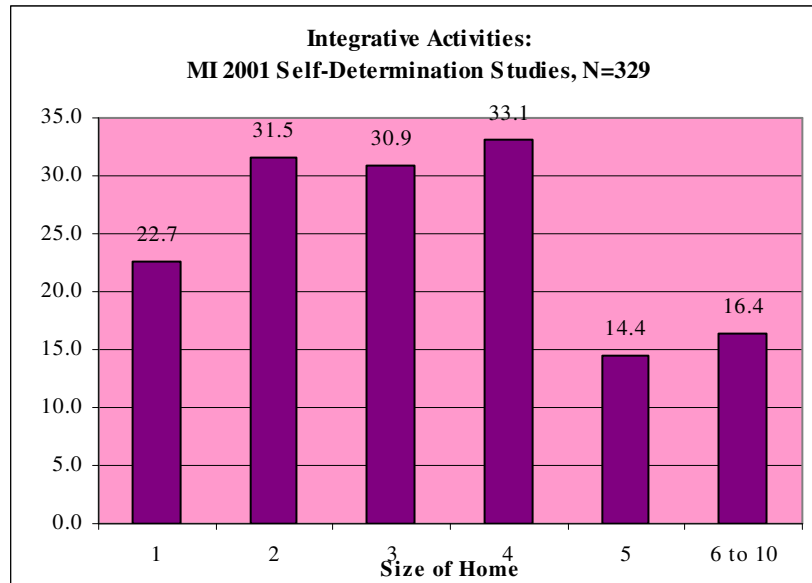dings were strongly positive, and the question naturally arose: *"Could this model of supports 'work' in another kind of situation, a place larger and more urban?"* The first attempts to test that question were conducted in Michigan, beginning at the then named Wayne Community Living Services agency.

When the Robert Wood Johnson Foundation awarded 17 grants to state agencies to test self-determination, Michigan was one of the first to receive funding. The demonstration involved people at four pilot sites in the state. Our evaluation efforts began in 1998, and involved visiting all the potential participants "pre" self-determination. We collected data on multiple qualities of life before the people began working toward individual budgets, independent case management, and fiscal intermediaries. More than 400 people were included in the 'baseline' data collection.

In 2001, most of the potential participants were visited again, and the same quality data were collected. This provided a database on quality for hundreds of people in Michigan – and these data have never before been analyzed with respect to the size of the community residence. What follows is entirely new research on the question of size and quality – and specifically among people in Michigan.

In 2001, we visited 329 people across the four pilot sites in Michigan, and one of the quality indicators was again integrative activities. The following graph shows the results.

Integrative Activities:
MI 2001 Self-Determination Studies, N=329

Values by Size of Home: 1 = 22.7, 2 = 31.5, 3 = 30.9, 4 = 33.1, 5 = 14.4, 6 to 10 = 16.4

Clearly, the smaller community homes were associated with higher levels of community integration. The drop-off began at 5 people.

Power and control, the classic issues of self-determination, were explored. The next graph makes it obvious that opportunities for choicemaking fell sharply in the larger settings.

Opportunities for Choicemakiong (Self-Determination)
MI 2001 Self-Determination Studies, N=329

Values by Size of Home: 1 = 84.7, 2 = 78.1, 3 = 79.6, 4 = 60.7, 5 = 59.5, 6 = 48.0
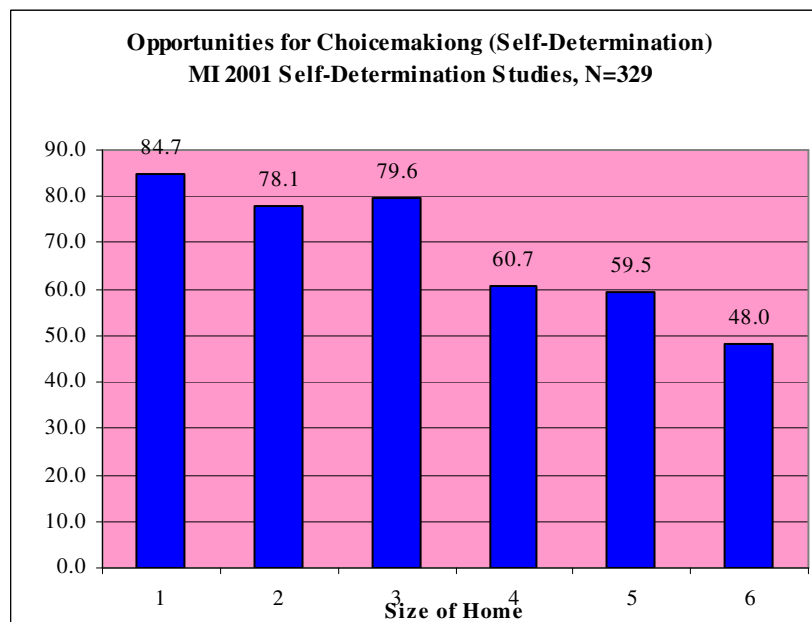
Once again, we attempted to directly interview every person visited. Not everyone was able or willing to respond, but for those who were, we were able to

ask whether they were satisfied with the amount of control and freedom they exercised over their own lives. The data showed superiority in the smaller settings, with a drop-off above 4 people.

Personal Interview - Perceptions of Satisfaction w/ Freedom
MI 2001 Self-Determination Studies

Size of Home	Value
1	2.5
2	3.7
3	3.3
4	3.1
5	2.2
6	2.3
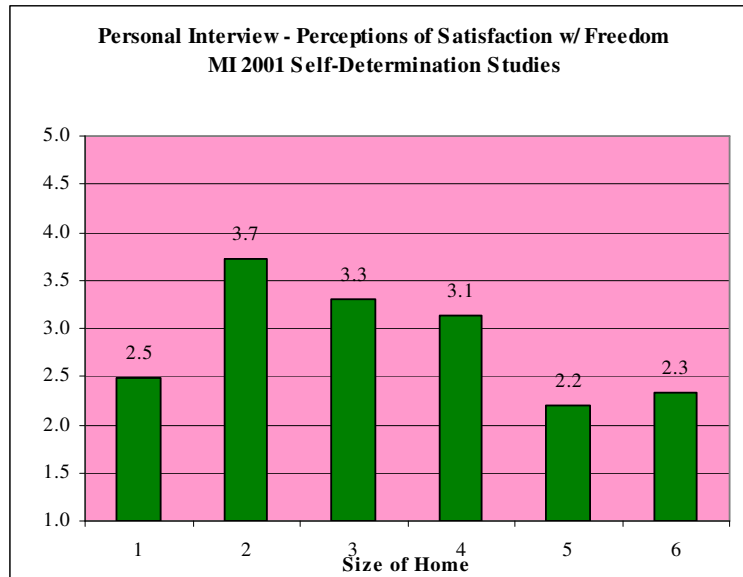
The overall qualities of life scale showed the highest scores in the small settings, with a drop-off above 5 people.

Qualities of Life Scale Ratings
MI 2001 Self-Determination Studies, N=329

Size of Home	Value
1	71.4
2	80.3
3	84.4
4	81.3
5	82.4
6	70.4
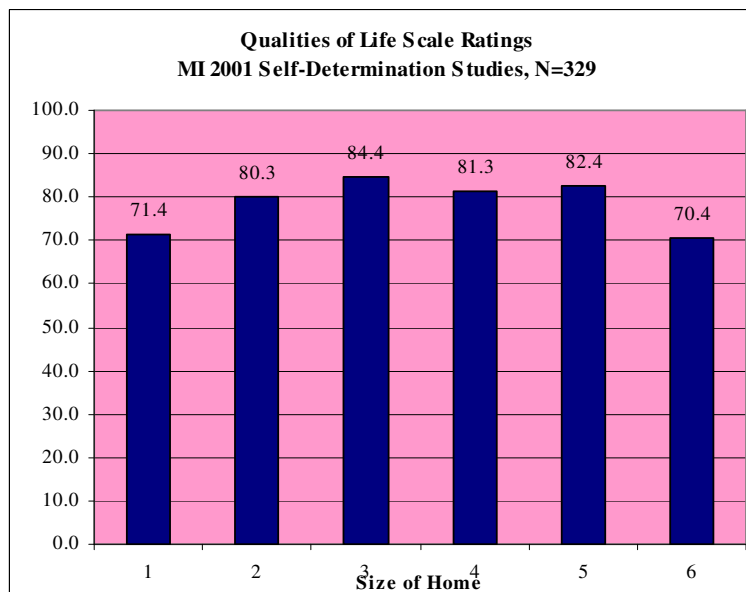
The data included ratings of the degree to which each person was making progress toward his/her individual program goals. The tendency here too was superior outcomes in the smaller settings, with the homes of size 1, 2, and 3 higher

than homes of size 4, 5, or 6. Statistically, these data showed significant difference only between the smaller and the larger homes.

Progress Toward Individual Goals
MI 2001 Self-Determination Studies, N=329
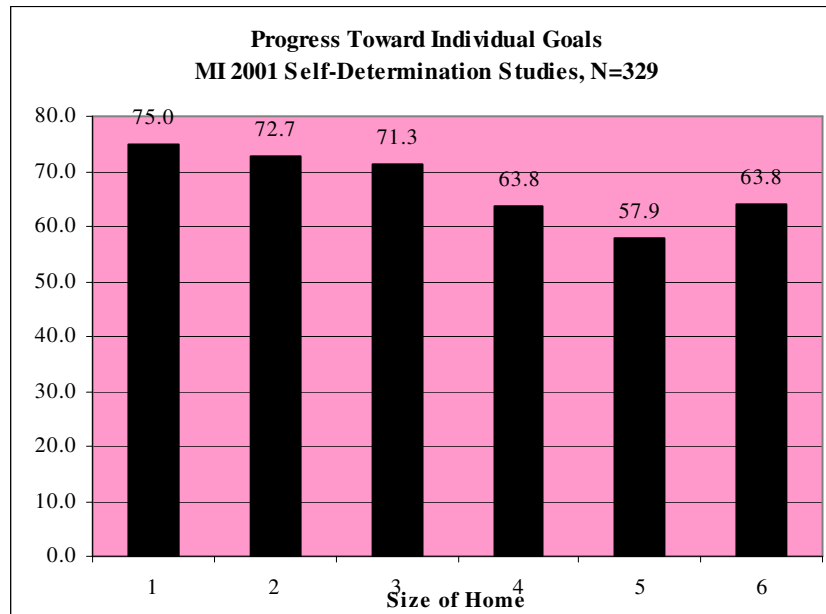
Overall, the data from the Michigan work supported the inference that smaller homes were connected with higher qualities of life and service. Several analyses showed a serious decline in quality when size rose above 4 beds.

New Analyses from the National Core Indicators Project

The NCI (National Core Indictors) project[23] is an attempt to acquire data on qualities of support and life across state lines. Using the most recent data from that project, investigators examined personal choice – an index composed from four simple items on control and power over one's own life. The 2006 data showed a strong pattern of declining choice in larger homes.

Personal Choice Scale Scores (A SD Measure)
National Core Indicators, 2006, N=2,087

Size of Home	Average Choice Scale Score
1	1.62
2 to 3	1.31
4 to 6	1.20
7 plus	0.99
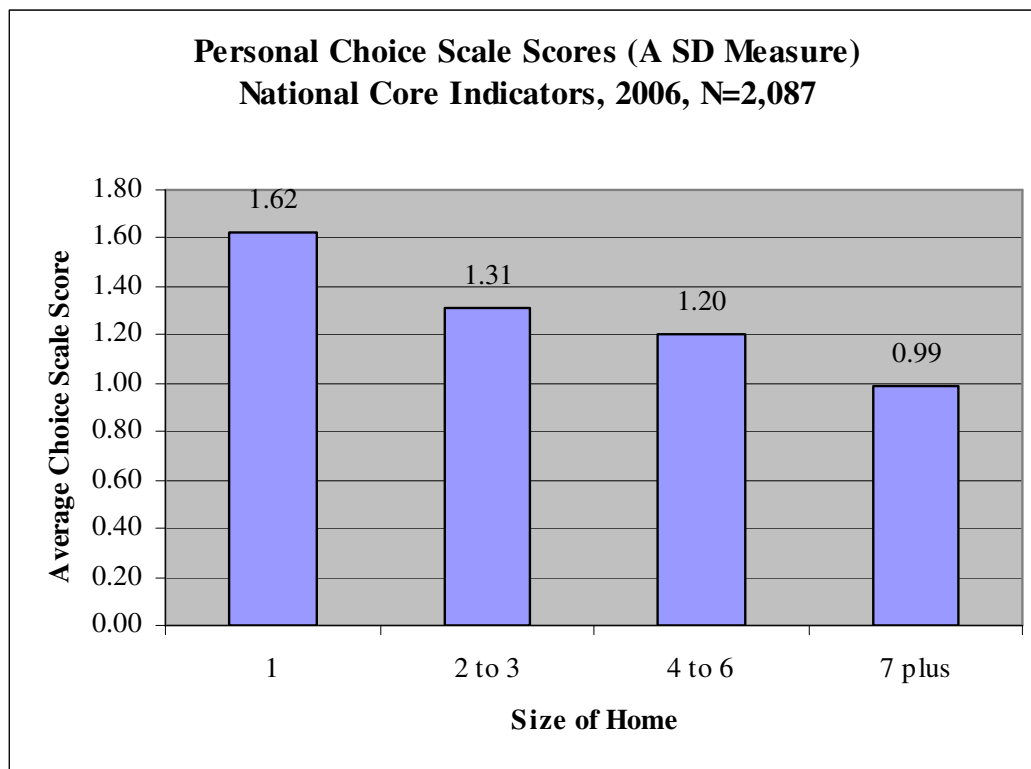
These data were explored in Lakin et al. (2008a) in an article entitled "Choice-Making Among Medicaid HCBS and ICF/MR Recipients in Six States."[24] According to the authors,

> Choice in everyday decisions and in support-related decisions was addressed among 2,398 adults with intellectual and developmental disabilities receiving Medicaid Home and Community Based Services (HCBS) and Intermediate Care Facility (ICF/MR) services and living in nonfamily settings in six states. Everyday choice in daily life and in support-related choice was considerably higher on average for HCBS than for ICF/MR

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[23] See NCI website at http://www2.hsri.org/nci/ .

[24] This article was based partially on an earlier report submitted by the University of Minnesota to the Centers for Medicare & Medicaid Services: University of Minnesota, 2006.

recipients, but after controlling for level of intellectual disability, medical care needs, mobility, behavioral and psychiatric conditions, and self-reporting, we found that choice was more strongly associated with living in a congregate setting than whether that setting was HCBS- or ICF/MR-financed.

Thus the data showed that, other things being equal, choice and self-determination were highest in the smallest settings.

The NCI database also permits analysis of the issue of loneliness. One common question about small settings, naturally, is "Won't people be lonely if they live by themselves or with just one or two others?"

The loneliness issue was explored in some detail, by Stancliffe et al. (2007) in an article entitled "Loneliness and Living Arrangements." The authors found among 1002 people in the NCI database that:

> …loneliness was not more common for people living alone or in very small settings. More loneliness was reported by residents of larger community living settings of 7 to 15 people.

Moreover, higher levels of 'social contact' and 'liking where one lived' were associated with less loneliness.

The most recent data, presented by Moseley, Bradley, & Lakin (2010), showed that loneliness actually increased in the larger settings.
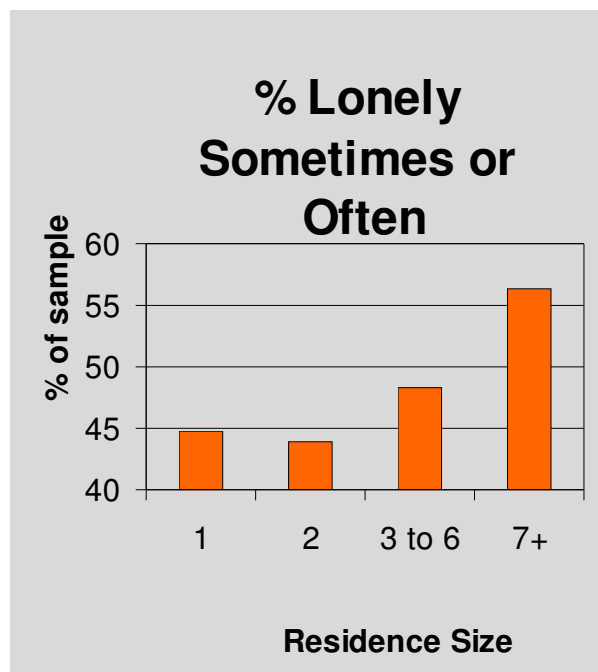
In addition to freedom and loneliness, the NCI data enable some insight into the simple issue of how much people "like" their homes. The following graph was constructed to show how many people Don't Like their homes – and, organized by size, the results are dramatic.

% Like Home?
No or In-Between
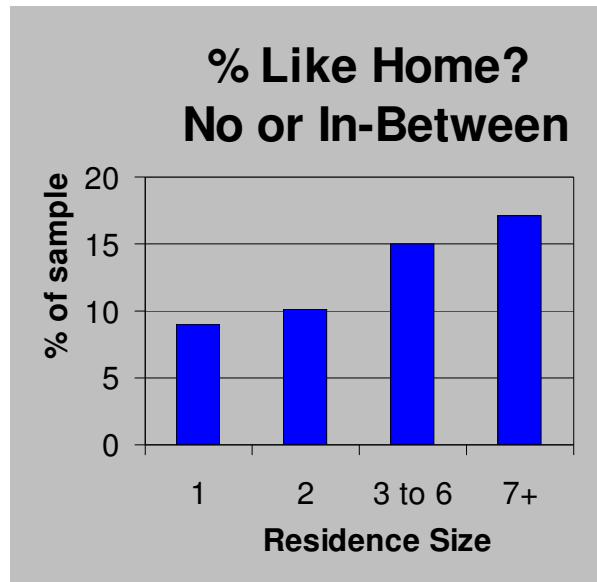
Currently the largest database in the United States on quality of residential settings, the NCI reveals evidence that is entirely one-sided. Larger settings are very much the worse in terms of self-determination, loneliness, and simple satisfaction.

Most human services do not have such national databases with which to examine important issues. The existence of data from the NCI, and our own large studies, are extremely strong advantages in the scientific pursuit of policy. With regard to size and quality, the data overwhelmingly support the notion that small, family-scale settings are far superior to the larger, barracks-like group homes.

However, money has not yet been considered. The final section of this Policy Report examines what is available in that dimension of public services.

Cost Analyses by Size from Several Databases

The first point to be made about cost, quality, and size of residential settings is that the largest settings are associated with lower quality in the research literature, and yet they continue to be the most costly. The second point is that our usual assumptions about Economy of Scale may be wrong. The third point is that the data available to us right now are not conclusive – but they are consistent in that they tend to question the notion that moving people into larger group homes will "save money."

Before presenting these somewhat old data, it is important to stress that more research is urgently needed. We have not examined the costs of settings by size for nearly a decade.

That being said, the first large scale analysis of cost by size is shown in the following graph from Pennsylvania data in 2001.

Cost by Size, CLA & ICF, PA 2001: N=1655

Size	CLA	ICF
1-3	55.8	
4-8	50.8	66.4
9-15	50.7	65.9
16 Plus	52.2	66.4

Y-axis: $1000s Per Year (0 to 70)
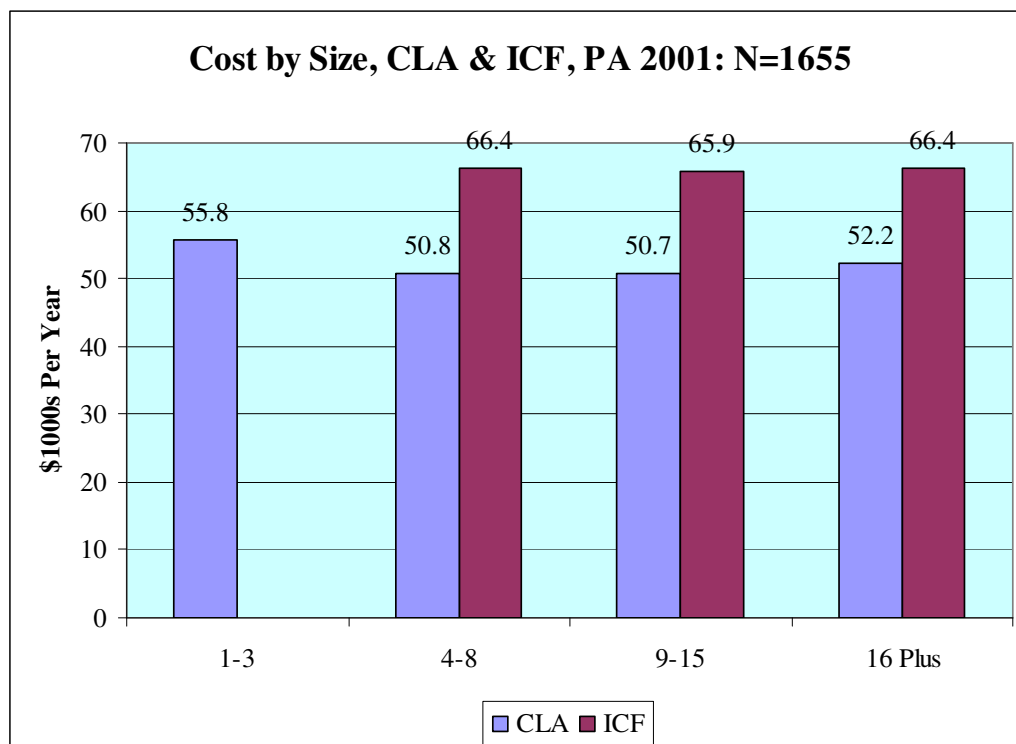
We broke out the data by type of funding stream. CLA stands for Community Living Arrangement, a model that rarely goes above 3 beds. ICF is the Intermediate Care Facilities or ICF/MR funding stream, which was defined in 1981

as "4 to 15 beds." For the CLAs, costs fell slightly with settings over size 3. For the ICFs/MR, they did not.

In a study published in an academic journal, we investigated costs in Oklahoma in 2000. The graph following shows that the 4 to 6 person homes were less expensive than others, but when programs went above that size, costs escalated sharply.

Total Cost by Size of Home: OK 2000 N=1039

A bar chart titled "Total Cost by Size of Home: OK 2000 N=1039" with the y-axis labeled "Total Cost to Taxpayers" ranging from $0 to $160,000, and the x-axis labeled "Home Size" with categories 1, 2, 3, 4 to 6, and 7 Plus. The bar values are: 1 = $115,388; 2 = $104,207; 3 = $98,223; 4 to 6 = $43,332; 7 Plus = $139,598.
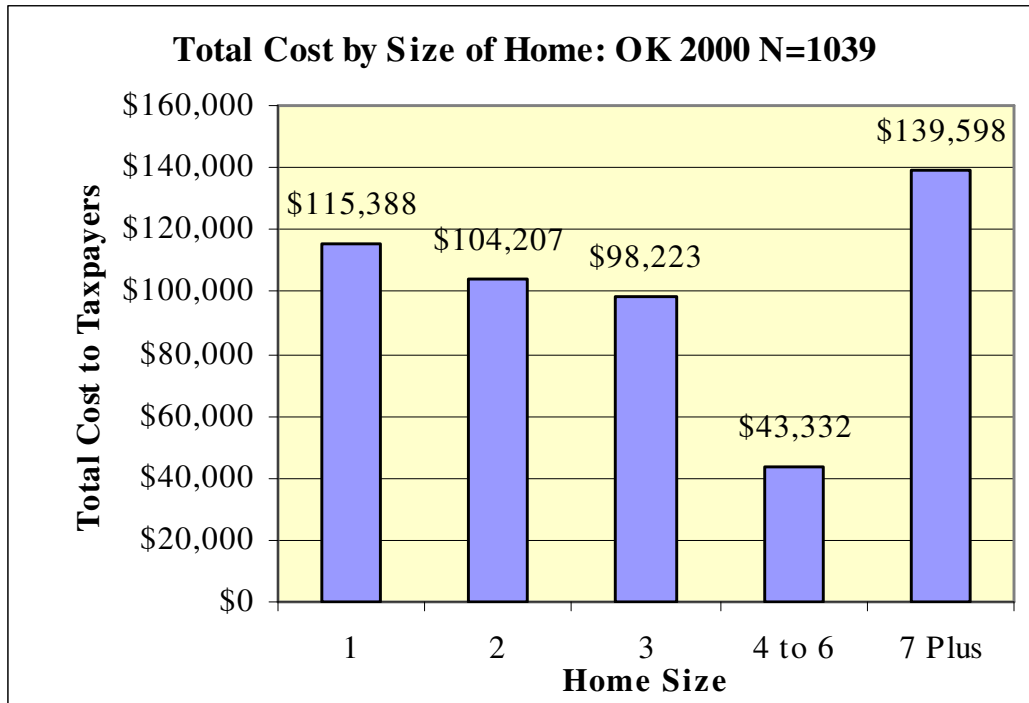
Finally, in our 2001 studies in Michigan, we found that the amount in a person's individual budget was inconsistently related to the size of the home.

Cost by Size, Michigan, 2001
192 Self-Determination Participants
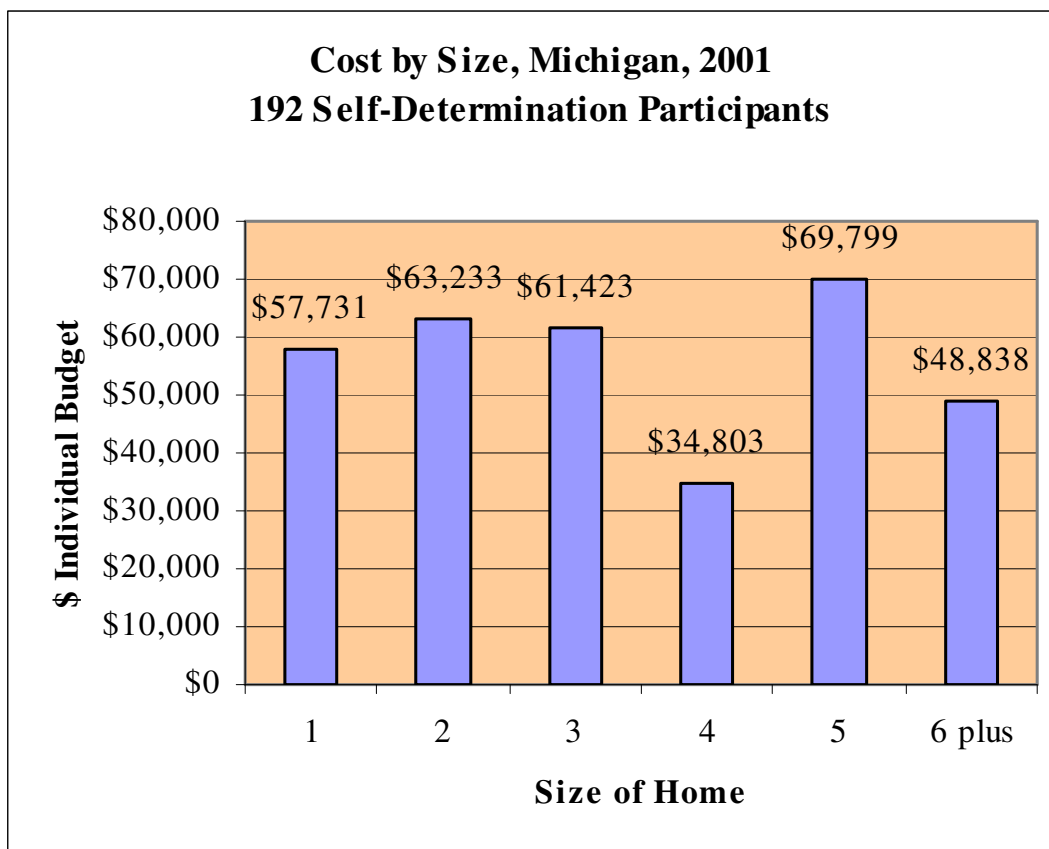
This data set showed the lowest cost per person for the 4-person homes. The spike at 5-person, and the drop at 6 and more is not yet understood. More study will be necessary to explain these complex findings.

Referring once more to the National Core Indicators database, the most recent cross-state evidence on costs and size of homes is provided in Lakin et al. (2008b). In an article entitled *"Factors Associated With Expenditures for Medicaid Home and Community Based Services (HCBS) and Intermediate Care Facilities for Persons With Mental Retardation (ICF/MR) Services for Persons With Intellectual and Developmental Disabilities,"* these authors explored two kinds of community residential settings and their costs.

The so-called ICF/MR settings are funded via the Intermediate Care Facility/Mental Retardation (ICF/MR) program, which was defined as 4 to 15 beds, and was based firmly on old nursing home models and regulations. The other kind of community funding, the so-called Home and Community Based Services (HCBS) or 'Medicaid Waiver' settings were designed in reaction to the overly medicalized characteristics of the ICF/MR program. Waiver settings are expressly

designed to be smaller and more family-like than 'hospital-like' than the ICF/MR homes.

According to the authors in their Abstract,

"This article examines expenditures for a random sample of 1,421 adult Home and Community Based Services (HCBS) and Intermediate Care Facility/Mental Retardation (ICF/MR) recipients in 4 states. The article documents variations in expenditures for individuals with different characteristics and service needs and, controlling for individual characteristics, by residential setting type, Medicaid program (ICF/MR or HCBS), and state. Annual average per-person Medicaid expenditures for HCBS recipients were less than those of ICF/MR residents ($61,770 and $128,275, respectively). HCBS recipients had less severe disability (intellectual, physical, health service needs) than ICF/MR residents. Controlling these differences, and for congregate settings, HCBS were less costly than ICFs/MR, but this distinction accounted for only 3.3% of variation in expenditures. Persons living with families receiving HCBS ($25,072) and in host families (including foster, companion, or shared living arrangements; $44,112) had the lowest Medicaid expenditures.

Thus, other things being equal, the smaller, more family-like Waiver or HCBS settings were associated with slightly lower costs than the larger, more institutional, ICF/MR settings.

All in all, the notion that larger settings are less costly is not clear from data in Michigan. We must therefore be cautious and tentative in our conclusions.

However, because the quality data from Michigan and all over the nation are so compelling, we must caution policy makers there is no evidence that moving people into larger group homes will save money, but there is a great deal of evidence that quality would be sacrificed.

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Appendix A: Sociological Literature on Group Size

Literature Review on Group Size from the Sociological Tradition[25]

People have always asked themselves major questions that are related to the issue of group size:

- How many roommates should I have in college?
- Which is better, a small family with one or two children, or a large one with more?
- Should I have a big wedding or a small one?
- Will I be happier working for a large company or a small one?
- How big can a club be before it needs to split up into two chapters?
- What is the best size group of laborers?
- How many soldiers should be in a combat unit?
- What is the best size committee for decision-making?
- What is the best size committee for member satisfaction and enjoyment?
- What really happens as groups get bigger - does specialization increase, and do interpersonal interactions become more formal?

In modern times, people have usually turned to the field of sociology for answers to questions of this kind. Indeed, there are treatments of group size in nearly all of the modern sociology textbooks.

Sociological interest in the question of group size is best traced to the work of German sociologist Georg Simmel (1858-1918). Most of his writings on the sociology of groups were completed around the turn of the century, but the translations of Kurt Wolff (Wolff, 1950) made Simmel's work widely accessible to English speaking sociologists.

The headings within Simmel's seminal essay "Quantitative Aspects of the Group" are illustrative of his interest in the size issue:

I. *On the significance of numbers for social life*
II. *The quantitative determination of group divisions and of certain groups*
III. *The isolated individual and the dyad*
IV. *The triad*
V. *The importance of specific numbers for relations among groups*

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[25] Adapted and extended from Conroy, J. (1992). *Size and Quality in Residential Programs for People with Developmental Disabilities*. A Dissertation Submitted to the Temple University Graduate Board in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy. Philadelphia: Temple University.

In this essay, Simmel tried to write a "grammar of social life" (Coser, 1965) by considering one of the most abstract characteristics of groups, that is, the mere number of participants. He described the characteristics of dyads and triads, and showed how qualitative differences in interaction patterns inevitably occurred simply as the result of numbers.

Simmel noted that a dyad differs from all other groups in that its members have to interact directly with one another. If one member ceases to pay attention, interaction stops. If either member withdraws from the group, there is no group. The dyad can develop a sense of unity and intimacy not found in larger groups, but the dyad can be fragile, and requires continual efforts by both parties to be maintained.

Addition of another person to form a triad alters the situation significantly. Any one member can ignore the conversation of the others without destroying the group's interaction. The third member can function as a stabilizing and mediating influence for the other two; alternatively, the third member may become an "intruder." Two members can ally against the third, so that feelings of isolation and persecution are possible in a triad. In general, Simmel believed the triad was the most fragile sized group because of the almost inevitable "two against one" situations.

Simmel discussed the properties of interactions within dyads and triads in contexts as diverse as marriages (dyad), mothers-in-law with marriages (triad), neighboring serfdoms in Europe (dyads), and Rome, Sparta, and Athens (a triad in which Rome constantly destabilized the relationship between the two Greek cities.)

After the triad level, Simmel's treatment ceased to discuss specific numbers. He believed that it would be theoretically possible to describe the unique characteristics of each size group, up to the teens at least, but he also believed that the effort required, and the length of the descriptions, would be beyond feasibility. Ultimately, he concluded that group size would be related to group behavior no matter who was in the group or what its purpose was. Thus, for Simmel, size was truly a fundamental property of any group. Much of Simmel's effort on this topic was devoted to understanding why, and by what mechanisms, group size influenced group behavior, but stopped at the triad level.

Although Simmel stopped explicit group size descriptions at size three, it is interesting to note that certain religious writings have gone somewhat further. The Koran contains very specific advice about group size where wives are concerned:

> ...take in marriage of such other women as please you, two, or three, or four, and not more.

Williams (1961), the translator of this edition of the Koran, explained that the law required that a man treat each wife equally. However, the Prophet maintained that with two wives, equal treatment would be very difficult because of competition. In Simmel's terms, the triad would be unstable. With three wives, life would also be difficult because two of the wives would probably unite against the third, in another variation on Simmel's triad theme. With four wives, the odds were even for harmony. Two might side against the other two, but none would be completely isolated in most cases. Interestingly enough, this meant a total group size of five, a number that will appear again later in this section. The Koran analysis stops at total group size five, because more than four wives was simply forbidden as being "unreasonable" for one man. The fact that dogmatic statements about ideal group size were made more than a millennium ago is further evidence of the continuing interest in the size issue.

Although it was not possible for Simmel to demonstrate that each successive addition of a new member would produce a distinct sociological configuration (as he did for the dyad and the triad), he did show that there were crucial differences between small groups and larger ones. He contended that, as more and more members were added, the nature of interactions necessarily continued to change. Many of the changes were related to the phenomenon of division of labor.

Although Durkheim did not mention group size as an explicit consideration in the phenomenon of division of labor (Durkheim, 1933), Simmel did. He believed that division of labor inevitably increased with group size, and that the character of the interactions in the group changed as well. As translated by Wolff,

> It will immediately be conceded on the basis of everyday experiences, that a group upon reaching a certain size must develop forms and organs which serve its maintenance and promotion, but which a smaller group does not need. On the other hand, it will also be admitted that smaller groups have qualities, including types of interaction among their members, which inevitably disappear when the groups grow larger. (Page 87.)

> In the small group, the contribution of each to the whole and the group's reward to him are visible at close range; comparison and compensation are easy. In the large group they are difficult, especially because of the inevitable differentiation of its members, of their functions, and claims. A very large number of people can constitute a unity only if there is a complex division of labor. (Page 88.)

In a similar manner, the large group gains its unity, which finds expression in the group organs and in political notions and ideals, only at the price of a great distance between all of these structures and the individual. In the social life of the small group, by contrast, the individual's views and needs are directly effective, are objects of immediate consideration. (Page 96-97.)

Simmel clearly perceived tradeoffs inherent in increasing group size. With greater size, he believed, came greater specialization of function, and correspondingly less "wholeness" of personal identities, less equality, and less warmth of interactions.

In small groups, members tend to be able to interact directly with one another. Once the group exceeds a relatively limited size, such interaction must be mediated through formal arrangements. In the words of Coser (1965):

In order to come to grips with the increasing complexity of relationships among large numbers of individuals, the group must create special organs to help the patterning of interactions among its members. Thus, no large group can function without the invention of offices, the differentiation of status positions, and the delegation of tasks and responsibilities. This is why larger groups must be societies of unequals: in order to maintain themselves, they must be structurally differentiated.

Simmel was also apparently the first to discuss the phenomenon of subgroup formation. As a human group expands, there is a necessity for subgroups to form. Simmel explained this through the example of a "party." As Simmel evidently observed in his own experience, the first few people to arrive at a party tend to interact with each other in a single intimate cluster. But as people continue to arrive, some of the members come to dominate the discussion, and others do not speak at all. This is usually seen when about six to twelve people are present. The members who are not speaking become dissatisfied with their involvement, and strike up side conversations with the people next to them. As the party continues, the original group almost inevitably fragments into smaller groupings, within each of which, each member has a chance to participate verbally.

Although the party may not intuitively seem to be a representative social situation, it has one very crucial aspect: the people are usually there to enjoy themselves. Thus it is one of the best possible situations in which to see what people will do when following their own preferences. It seems clear that most people prefer to be in situations in which they can participate comfortably, and that generally appears to involve small numbers of associates rather than a large "audience."

It is worth noting that sociologists have concluded that the vast majority of our interaction with other human beings occurs in very small groups. Sociologist

John James (1951) and his students observed 7,405 informal interactions of pedestrians, playground users, swimmers, and shoppers, and 1,458 people in a variety of work situations. They found that 71 percent of both the informal and work interactions consisted of two people; 21 percent involved three people; 6 percent included four people; and only 2 percent entailed five or more people.

The crude question "Are small groups or large groups more effective?" can at best yield crude answers. The answer must depend on the type of task, the kinds of members, the time available, and other variables such as the characteristics of the environment in which the group meets. Kohler (1927) reported that in a tug of war, a bigger group can pull harder than a smaller group (not a great shock), but also found that the total team pulling power did not increase in direct proportion to the number of people on the team. As each new person up to 12 was added, each of the members pulled about 10% less energetically.

This simple finding implies that it is necessary to probe deeply into complex patterns of intervening variables to fully understand the why of the relationship between group size and any kind of effectiveness. We need to ask why the addition of another team member might have influenced the motivation of the other members, the group structure and cohesiveness, and/or the leadership of the team. What are the mechanisms through which size can affect other group variables?

This kind of finding is related to Olson's theoretical discussion of the fundamental variable that goes with size of groups, which he said is the visibility of each member's contribution to the common good (Olson, 1965). As he put it,

> ... any group or organization, large or small, works for some collective benefit that by its very nature will benefit all of the members of the group. Though all of the members of the group therefore have a common interest in obtaining this collective benefit, they have no common interest in paying the cost of providing that collective good. Each would prefer that the others pay the entire cost. (Page 21)

Olson then defined three kinds of group in relation to this variable: "privileged," "intermediate," and "latent." These three varied in the amount of incentive for each member to help pay the cost of obtaining the common good. He used these concepts in an analysis that concluded that "small groups are not only quantitatively, but qualitatively, different from large groups" (page 52).

For the current topic, the most germane implication of Olson's analysis was that, in general, the larger the group, the less the incentives for individual members to contribute to the common good. In the very large "latent" group, an individual "cannot make a noticeable contribution to any group effort, and since no one in the

group will react if he makes no contribution, he has no incentive to contribute" (page 50). This could apply to very large group living situations for people with intellectual disabilities. Each individual staff person in an institution would experience a weaker incentive (to work hard for the common good) than in a three person group home.

Simmel suggested that interactions within small groups would prove to be an important subject for future sociological research. This suggestion was neglected until after World War II, when Robert Bales and others initiated a tradition of laboratory studies of small group processes (Bales, 1950; Hare, 1952; Homans, 1950). Although such laboratory studies of primarily white male college students have been criticized for their lack of generalizability to other populations and to "real life," this body of research is still highly influential. Group size, while not a primary research concern in this tradition, was touched upon by nearly every small group researcher.

Bales, Strodtbeck, Mills, and Roseborough (1951) collected data on the distribution of participation among members of one kind of creative group, the discussion group. Their findings suggested that as the size of the group increased, the most frequent contributor assumed a more and more prominent role in the discussion. The bigger the group, the bigger the gap between the most and the least frequent contributors. Communication apparently tends to centralize in one person in larger groups. Moreover, the number of group members who contribute less than their proportionate share goes up as the size of the group increases (at least within the range from two to seven). Anonymity and invisibility become more feasible as group size increases from two to seven.

Gibb (1951) found that the total number of ideas produced by groups engaged in creative tasks increased with size, but not proportionately. Just as in Kohler's tug of war finding, there were diminishing returns from the addition of members. Gibb suggested that the mechanism of action for this phenomenon was the experience of inhibitions related to formalization and structure. As size increased, so did formal rules of participation. Gibb tested this by manipulating the rules of participation himself, and as formalization increased, fewer ideas were generated. The productivity of larger creative groups may suffer because of the shyness, inhibition, and resulting silence of the majority.

Both of these studies suggest that size influences member participation, which in turn influences one kind of effectiveness. Participation, then, is one

intervening variable that must be considered as a possible mechanism for relationships between size and effectiveness.

A second possible mechanism would involve leadership. The processes of leadership emergence and then of leadership style are almost certainly influenced by group size. Carter, Haythorn, Meirowitz, and Lanzetta (1951) found that the correlation between authoritarianism and leadership behavior increased as group size increased from four to eight. Hemphill (1950) compared leader behavior in groups above and below size 30. He found that in the larger groups there were greater demands upon the leaders, and that leader-centered behavior was tolerated by a higher proportion of the members.

Another possible mechanism mediating relationships between size and effectiveness is group cohesiveness and/or satisfaction. Worthy (1950) reported that surveys carried out by Sears, Roebuck and Company showed that both worker satisfaction and operating efficiency tended to decrease in larger administrative units. Seashore (1954) studied the cohesiveness of work groups in a large factory, and found that smaller groups (4 to 22) were more cohesive than larger groups. Mann and Baumgartel (1952) found that absenteeism increased with decreasing group cohesiveness among white collar workers. Hewitt and Parfit (1953) found that absenteeism in groups of 4 was one third of the rate in groups of 36, and one fourth the rate in groups of 128. Miller (1950) found large conference groups to be more disruptive than smaller ones. The feeling of a "sense of belonging" was correlated at -.44 with group size. Lack of opportunity to talk, which was correlated at .80 with group size, was associated with feelings of frustration.

Hare (1952) compared 5 and 12 person groups of Boy Scouts conducting a decision making task during a camping trip. Hare found that the 5 person groups arrived at higher levels of consensus. The larger group was felt to limit participation by leading some members to feel that their individual opinions were not sufficiently important to merit vocalizing.

In what appears to be the study that has been the most influential in the sociological literature on group size, Slater (1958) examined some correlates of group size in a sample of 24 "creative" groups of size four to size seven. After four meetings to discuss specific human relations problems and potential solutions, members were asked whether their group was too small or too large for maximum effectiveness.

Members of the five person groups expressed 100% satisfaction, never once saying their group was too large or too small. Members of larger groups said their groups were disorderly, wasted time, and some members were too aggressive or competitive. Larger group members sometimes called for more structure and central control, and sometimes called for less. Complaints about individuals dominating the entire group were common. In groups smaller than five, the sole complaint was that the group was too small. Direct observation suggested that members were inhibited from completely free expression of ideas because they were afraid of alienating one another and creating an unpleasant atmosphere.

The size issue was prominent in the 1980 examination of organizations by Clegg and Dunkerley (1980). Clegg and Dunkerley reviewed mentions of the size issue by Simmel, Merton, Selznick, Homans, James, and so forth. The flavor of the Clegg and Dunkerley treatment includes the notion of increasing "rulemaking" with increasing size, and regimentation along with that. In some sections of the book they substitute the word "formalization" for this tendency. Decreases in personal relations were also to be expected. They believed that bureaucracy was both more likely to appear and more appropriate for larger organizations. On page 223, they discussed the difficulties with operationalizing size, and noted that researchers had used widely different measures, which made it difficult to compare the results available in the literature. In the review of purely organizational literature of this paper, we will see this comment mirrored in the Gooding and Wagner (1985) meta-analysis of empirical studies.

The sum of these sociological studies seems to be that people tend to be happier in smaller groups. However, for some tasks, groups can be too small, even when satisfaction/happiness is the index of effectiveness.

At the same time that these pioneering post-War sociological studies explored the effects of group size upon a variety of variables related to effectiveness, an organizational literature, more oriented toward business and practical concerns, developed concerning size and "productivity." A full review of the organizational research literature will be presented next, in the literature review labeled Organizational and Industrial Psychology.

The review of sociological interest and research shows that questions about group size have been a major concern in the development of modern sociology. Beginning with Simmel, continuing right into the content of the most recent introductory textbooks, and covering nearly 100 years, it is clear that group size has been a major concern of sociologists. The scientific evidence about group size

and group effectiveness gives a complex picture, probably because of the many and varied approaches to measuring effectiveness. However, a consensus from the sociological literature does seem to emerge: human beings tend to prefer to live, work, and play in small rather than large groups. The preferred group size is clearly below 10, but beyond that, the evidence is not yet conclusive.

This sociological tradition and interest in group size is in some ways to be quite relevant to the issue of residential program size. In particular, these findings suggest useful insights into the question of group homes for citizens with disabilities, in that within the small group size range, as size increases,

- People spontaneously interact in very small groups, mostly dyads or one on one (as in the direct observation of natural interactions research of James)
- People spontaneously subdivide their groups, rarely allowing them to exceed 5 or 6 (as in the party situation studies of Simmel)
- Participation via individual effort tends to decrease in a phenomenon often called 'free riding' (as in the tug of war studies of Kohler)
- Participation via communication tends to decrease and centralize, relying on increased leadership by the few, but allowing anonymity and silence by the many (as found by Bales et al.)
- Authoritarianism increases from group size four to eight, correlating with the emergence of leadership and of members becoming passive followers (in the work of Carter et al.)
- Satisfaction with group process may reach a 'saddle point' around size five (as in the famous and influential work of Slater)
- Satisfaction with group process falls off in groups above five, and keeps falling lower into the teens, where it levels off at a low state
- Increasing size is related to formalization, rulemaking, regimentation, bureaucratization, and decreases in personal relations (discussed by Clegg & Dunkerley)

Applying these sociological findings to the world of residential programs clearly implies that 'small is good.' However, there is insufficient evidence to draw conclusions about specific sizes of homes that are 'too big.' And, as is obvious from the beginning, there really cannot be a magic number for all groups and all kinds of people. One size will never fit all. Nevertheless, our effort here is to think in policy terms, covering thousands of people, in thousands of homes, and considering the averages of well being and quality across them. With that perspective, the sociological body of knowledge suggests that there is probably a

natural human break point somewhere between four and six. Group sizes that big can be tolerated, and can sometimes be effective and/or satisfying – but above that, we tend to lose the most desirable qualities of intimate and rewarding human interaction.

Appendix B: Organizational Psychology Literature on Group Size

Literature Review on Group Size from Organizational and Industrial Psychology[26]

Another area that must be examined for relevant clues is the organizational effectiveness literature. Without doubt, the pyramid builders of ancient Egypt gave serious thought to the relationship between the size of a work group and its productivity. And before there were builders, there were warriors, who were probably <u>even more</u> concerned about how to "split up" to be "most effective."

However, modern management and organizational theory do not extend their bibliographies so far back in history. Here we will trace some of the high points of a huge body of work on organizational size and effectiveness and administrative intensity, which has arisen mainly since 1951. This body of work incorporates a major scientific debate around a concept called the A/P ratio, the relative size of Administrative versus Production personnel within industries. Next we describe the methods and conclusions of what is arguably the "best" summary of the entire body of modern empirical research. In a summary, we interpret the relevance of this body of research for practical interests about the size of community residential programs.

First, a general comment: it seems that any relationship one cares to find, can be found, in the empirical literature. This is probably because of the bewildering variety of measures of size and effectiveness that have been used, and possibly for other reasons, such as varying theoretical frameworks and disciplines of the researchers. Only in the 1980s did significant clarity emerge via the application of meta-analysis (Hunter, Schmidt, & Jackson, 1982).

Melman (1951), interested in the relationship between organization size and "administrative intensity," or the proportion of effort the organization devotes to self-maintenance, reviewed literature as far back as 1934 (Robinson,1934). Melman examined data on American manufacturing industries from 1899 to 1947, and was evidently the first to identify the A-P ratio (the ratio of Administrative to Production personnel) and make the case that larger organizations have a relatively lower proportion of resources devoted to administrative functions than do smaller ones: *"... the largest asset-size firms have a manifest advantage with respect to*

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lower administrative expenditures per dollar of production expense than was the case for the smaller firms ..." (Page 90).

Soon after that article was published, the A-P ratio became the topic of one of the great debates in organizational theory, spilling over into management science, economics, social psychology, and sociology. According to one of the most recent analyses of the debate, *"The theory of size as a cause of administrative intensity (the A-P ratio) is perhaps the most heavily researched topic in the history of the study of organizations"* (Marsh & Mannari, 1989, page 83). The question of the A-P ratio is closely related to the question of effectiveness, because of the possibility that as administrative intensity increases, it may increase past the point of diminishing returns, and organizations may become "top-heavy" and wasteful rather than "lean" and efficient. It is therefore useful to review the A-P debate, albeit briefly, in responding to the question at hand.

Not long after the Melman article, Terrien and Mills (1955) published evidence that larger organizations had larger proportions devoted to administrative duties. Their conclusion was founded on analysis of 732 school districts in California. It was remarkably weak evidence for such a broad interpretation; but Terrien and Mills themselves never generalized beyond their narrow school district interpretation in the text of their article.

';   In a review article that attempted to summarize a number of the empirical studies that had been generated in the period after Melman's initial article, Caplow (1957) chose "group size" as a unifying concept. He considered simple mathematical interaction possibilities (combinations and permutations of the number of members of the group), and distinguished small, medium, large, and giant groups. He claimed that each had distinct characteristics. His analysis of the available evidence led him to the conclusion that size was correlated with the A-P ratio, and also with group stability, uniformity of organizational design, and the incidence of communication problems.

Caplow noted that *"There is an almost universal belief that the administrative and overhead components of any organization increase out of proportion to increases in its size" (page 504).* Caplow also made an intriguing observation on the length of the chain of command in large organizations, saying that downward and upward communication becomes awkward when there are "more than six or seven echelons" to be traversed. His choice of "six or seven" was not substantiated in the article, but was interesting in view of later management beliefs about the span of control.

Caplow's specific contribution to the quantitative debate was of limited value. As noted in the closing paragraph: *"We know just enough, in sum, about the effects of size on organizational structure to perceive that size is an important element in determining the way any human organization adapts to its environment and that the whole subject deserves closer study"* (page 505). Nevertheless, in later work, Caplow was almost always cited.

Slater (1958) concerned himself solely with group member satisfaction as his primary measure of group effectiveness. Although it should be considered a tenuous indicator of group effectiveness, for many kinds of tasks, group member feelings are critical for success. His group tasks involved collection and exchange of information about a situation, the coordination, analysis, and evaluation of this information, and a group decision about the best administrative decision in the situation. By interviewing and observing participants, he was able to describe what they felt were the major disadvantages of groups that were too small or too large.

Slater found that groups larger than size four were "never felt to be too small," and groups smaller than six were "never felt to be too large." Slater concluded that group size five was the most effective according to the dual criteria of successful task completion and member satisfaction. Slater's studies are among the most widely cited in the entire size literature. This is remarkable in view of the narrow nature of Slater's measure of group effectiveness, which was member satisfaction, and in view of the very restricted nature of the participants in the studies, i.e., white male college students.

Thomas and Fink (1963) reviewed 31 empirical studies of small groups in which group size was related to group performance, distribution of participation, nature of interaction, group organization, member performance, conformity, consensus, and satisfaction. Unfortunately, the studies were generally of such poor methodological quality, and used such different samples, procedures, and measures, that the conclusions were trivial:

> Many variables were found to be significantly affected by group size, but methodological shortcomings characterizing this group of studies preclude the assertion of broad generalizations. Several dependable and nondependable intervening variables are suggested which may help to account for many of the observed effects. Conclusions are: group size is an important variable which should be taken into account in any theory of group behavior, and future research on group size should proceed more systematically than in the past. (Page 383.)

Or, in idiomatic English: A lot of studies seemed to show that size was related to different kinds of effectiveness, but they were all scientifically mediocre, and better studies are needed.

Steiner (1966) argued that the effects of group size depended on the task. He classified task types in an effort to make predictions about group size and "potential productivity." He conceived of "actual" productivity as potential productivity minus losses due to poor coordination among members. His classification scheme was at least interesting: additive tasks, in which members' abilities add together arithmetically, as in a tug of war; disjunctive tasks, in which the entire enterprise depends on the ability of the most able member; conjunctive tasks, which depend on the least able member; and so on. His analysis rested entirely on reviews of previous studies of group size.

Frank and Anderson (1971) performed an empirical test of Steiner's (1966) notion that the relationship between size and group performance depended on the type of task. Their findings with group sizes of 2, 3, 5, and 8 confirmed the differential effects of size depending on task type, and in the directions predicted by Steiner: increases in group size enhanced performance on disjunctive tasks (where performance depends on the most competent member), and decreased performance on conjunctive tasks (where performance depends on the least competent member). This may have been an obvious and trivial revelation. For a task that depends on the smartest member, larger groups are probabilistically more likely to have one really smart member than smaller groups, so the more the merrier; and vice versa. Nevertheless, later literature referred frequently to this Frank and Anderson study.

Then, in 1970, Blau became interested in the problem, and his influence was strongly felt (Blau, 1970a, 1970b; Blau & Schoenherr, 1971; Blau & Schoenherr, 1973). According to a succinct review of Blau's contributions by Freeman and Hannan (1975), the central point of Blau and colleagues was that larger organizations were more complex, and more complex organizations had more coordination problems, for which the organizations would hire more administrative personnel. However, this did not result in a higher A-P ratio, because larger organizations already had in place a functional and well-understood administrative system. As Blau (1972) put it:

> If the volume of administrative work increases less than proportionately as the volume of operations increases; and if the volume of work governs the number of persons needed to accomplish it, in administration as well as in operations, it follows that the number of persons in administration increases

less than that in operations; and hence that the proportion of administrative personnel decreases as the total number of employees increases. (Page 18.)

In other words, the position taken by Blau and colleagues was that increases in organization size did lead to more administrators, but not proportional to the size increase. "Economies of scale" more than counteracted the administration increases, via efficient differentiation and assignment of administrators to known and well-defined roles.

In the spirit of a footnote, it was during this historical period that the accomplished and respected economist E. F. Schumacher published a book entitled ***"Small Is Beautiful: Economics As Though People Mattered."*** He emphasized the importance of human feelings within the economic arena (Schumacher, 1973). This intriguing little treatise became a countercultural resource in rapid order. For those who tended toward distrust of the Western establishment, it was easy to jump aboard the simplistic interpretation of Schumacher's work and oppose all "bigness": big government, big industry, big insurance companies, big military-industrial complex, and so on.

However, most interpretations of Schumacher's insightful writing were overly simplistic. His insights, particularly if we extend into the economics of the human services, were quite deep and compelling. Despite the fact that he was not writing for scholars, his work was founded firmly in an understanding of classical and modern economics, and was also blended with a grasp of individual psychology and humanism. Schumacher saw that all of the literature on size, the A-P ratio, and effectiveness had implicitly accepted the notion that the ultimate and only goal of the organization was effectiveness, however measured. Common sense suggested that this was an incomplete view, and one in which humanitarian values might easily become lost. Schumacher traced his economic training as follows:

> I was brought up on an interpretation of history which suggested that in the beginning was the family; then families got together and formed tribes; then a number of tribes formed a nation; then a number of nations formed a "union" or "United States" of this or that; and that, finally, we could look forward to a single World Government. ... Second, I was brought up on the theory that in order to be prosperous a country had to be big - the bigger the better. ... And third, I was brought up on the theory of the "economies of scale" - that with industries and firms, just as with nations, there is an irresistible trend, dictated by modern technology, for units to become ever bigger. ... Even today, we are generally told that gigantic organizations are inescapably necessary; but when we look closely we can notice that as soon as great size has been created there is often a strenuous attempt to attain smallness within bigness. The great achievement of Mr. Sloan of General Motors was to structure this gigantic firm in such a manner that it became, in fact, a federation of fairly reasonably sized firms. (Page 63-64.)

Schumacher's points are still persuasive. Moreover, much of the literature since his book <u>has</u> questioned the old assumptions about economies of scale and the inevitable trend toward huge organizations. He also suggested one thing not seen elsewhere in the literature: the notion that organizations become large for non-rational reasons. Although he did not explicitly state it in anthropological terms, he suggested that the real motivating force behind the creation of vast organizational empires might be, not efficiency or productivity or effectiveness, but simple human territoriality. This drive, which has been clearly documented and studied all the way from insects to humans, aims toward individual "control" of more and more "turf," and "turf" can be spatial or social. Territoriality is a survival trait among species functioning at instinctual levels; whether it is a survival trait for creatures with language and tools and weapons of mass destruction is still an open question.

Schumacher went on to consider human needs on an equal footing with organizational needs. He expressed the opinion that humans needed both freedom, which was strongest in lots of small, autonomous units, and order, which was strongest in larger units with clear rules and predictable actions. In his words:

> What I wish to emphasize is the duality of the human requirement when it comes to the question of size: there is no single answer. For his different purposes man needs many different structures, both small ones and large ones. ... Yet people find it most difficult to keep two seemingly opposite necessities of truth in their minds at the same time. ... For constructive work the principal task is always the restoration of some kind of balance. Today, we suffer from an almost universal idolatry of giantism. It is therefore necessary to insist on the virtues of smallness - where this applies. (If there were a prevailing idolatry of smallness, irrespective of subject or purpose, one would have to try and exercise influence in the opposite direction.) ... For every activity there is a certain appropriate scale, and the more active and intimate the activity, the smaller the number of people that can take part, the greater is the number of such relationship arrangements that need to be established. (Page 65-66.)

Schumacher offered the example of teaching. Some kinds of teaching take place only in small intimate interchanges, while other kinds are best done in mass media or in huge crowds. The first question is always, what are we trying to teach? In the best summary paragraph of his book, he says:

> What scale is appropriate? It depends on what we are trying to do. The question of scale is extremely crucial today, in political, social, and economic affairs just as in almost everything else. What, for instance, is the appropriate size of a city? And also, one might ask, what is the appropriate size of a country? ... We cannot directly calculate what is right; but we jolly well know what is wrong! We can recognize right and wrong at the extremes, although we cannot normally judge them finely enough to say: "This ought to be five per cent more," or "that ought to be five per cent less." (Page 66-67.)

Schumacher forces us to continually wonder, "What are we trying to do?" as we contemplate the size of goal-oriented groups. It seems sensible that goals and

values <u>should</u> shape the desired forms and sizes of organizations, because different goals would be better served by different types of organizations.

Back in the mainstream of the literature, Snyder (1975) performed an experimental study on whether there was an "optimum group size" to accomplish a task and to be most personally satisfying to its members. He used groups of size 4, 5, 6, 7, 8, and 9. His findings indicated that size did make some difference, but relatively little. He concluded that the notion of an optimum group size was not supported by the analysis, although there was a trend for the group sizes 4 and 5 to be considerably more satisfying than sizes 8 and 9. Snyder's finding did not fully confirm that of Slater (1958) that group size 5 was ideal, but they did not reject it either.

In addition to reviewing the literature, Freeman and Hannan (1975) explored the often-raised idea that conclusions drawn from cross-sectional data might be systematically different from those arising from longitudinal data. They pointed out that the bulk of literature on administrative intensity was cross-sectional. They suggested that the relationship between size and administrative intensity might be quite different depending on whether the organization was growing or declining. If so, then cross-sectional analyses would obscure that fact. They developed a conceptual and mathematical model, and tested it with California school districts data, in the tradition established by Terrien and Mills (1955). Their analyses of the data suggested that they were right, and also that the A-P ratios were too complex to be useful in many analyses. They believed that cross-sectional analyses of organizational demography would often be quite misleading.

Freeman and Hannan's major conclusion could be stated as: when an organization is growing, the administrative component is always trying to "catch up" and is disproportionately "lean," but when the organization is declining, the administrative employees tend to be able to hold onto their jobs beyond their usefulness, making the organization look "fat" during decline.

In 1980, Dalton and colleagues published a review of the literature regarding organizational structure and performance (Dalton, Todor, Spendolini, Fielding, & Porter, 1980). The abstract of their article was rather strongly worded:

> Reviewing the research literature available on the relationship between structure and performance in an organization reveals a deficiency of sound research in all areas essential for serious study. Too little research and the inconclusiveness of studies that have been done both demand further research in the area. Distinctions are made between hard and soft performance criteria, the structuring and structural dimensions of structure, and subgroup and organization units of analysis.

Specifically, Dalton et al. reported that most investigators had failed to find a significant size – performance relationship at the organizational level. At the subunit level, they concluded that the majority of studies found that smaller groups were associated with better performance, across a variety of measures; however, a minority found better performance in larger subunit groups.

Despite their failure to substantiate any unambiguous relationship between size and performance, the Dalton et al. analysis was at least useful to the next generation of analysts, in that they suggested that level of analysis might be a very important source of confusion across studies. This led to the notion that one should distinguish studies of <u>organizational</u> size from studies of the size of subunits <u>within an organization</u>.

Until the 1980s, the study of size and effectiveness in the organizational research literature was somewhat chaotic, and very difficult to interpret. In 1985, Gooding and Wagner reviewed the relationship between size and performance of organizations and their subunits. Gooding and Wagner screened nearly 200 published studies, and selected 31 that met consistent methodological criteria. From these 31 studies, they attempted to find an interpretable pattern. The remainder of this section is a review of their conclusions.

Gooding and Wagner noted that three kinds of scientists had been at work on the question:

   1. Industrial-organizational economists had approached it through examination of organizational economies of scale. Most often, these analysts were searching for the size of organization or unit that would optimize the cost per unit of production. Findings in the literature were inconsistent.
   2. Many, but not all, organizational theorists also approached the problem with an inherent belief that organization size would be associated with significant economies of scale. Others emphasized the ability of larger organizations to exert more control over the sources of resources. This and related perspectives predicted that larger organizations would produce more, but not necessarily more per worker.
   3. Social psychologists approached the problem largely from the group, rather than organizational, level, and often reported an insignificant relationship between group size and indices of effectiveness, but sometimes reported decreasing effectiveness with increasing size. These analysts frequently hypothesized "free riding" as the culprit (in which group members, relatively anonymous in larger groups, could slack off with no one noticing), and also higher coordination costs with larger groups.

These three kinds of scientists had been approaching with different definitions and measurement techniques. Gooding and Wagner suggested that the reason the literature was confusing and often contradictory was that different kinds of scientists had been defining and measuring things differently. Gooding and Wagner specified three dimensions which had varied across studies:

1. The LEVEL OF ANALYSIS. Some studies had examined entire organizations, while others had analyzed subunits within large organizations.
2. The PERFORMANCE MEASURE. Some studies had used key informant ranking, others used organizational records, and others used physical output. Most importantly, some had used absolute output and others had used relative output (i.e., output per unit of size), potentially a very important difference.
3. The SIZE MEASURE. Some investigators had operationalized the size variable as the number of employees, others as the number of beds in a hospital or like facility, others as financial assets, and other as the magnitude of output transactions such as sales or number of clients served.

Gooding and Wagner concluded that these three variations could explain a major proportion of the differences across the studies. Employing a form of meta-analysis, as improved by Hunter, Schmidt, and Jackson (1982), Gooding and Wagner categorized each of the 31 studies according to the level of analysis, the performance measure, and the size measure. Their conclusions were clear:

1. Studies that used the organizational LEVEL OF ANALYSIS found that larger organizations were more productive in absolute terms, but not in ratio terms. That is, larger organizations produced more units, but did not produce more per worker. Gooding and Wagner concluded that there was actually no evidence for economies of scale in terms of worker efficiency. This finding was consistent across a variety of SIZE MEASURES.
2. Studies that used the subunit LEVEL OF ANALYSIS showed a negative relationship between size and productivity, both for absolute and relative measures of performance. This also held true across studies using a variety of SIZE MEASURES.

The group home size question is at the subunit LEVEL OF ANALYSIS. The typical situation is that a private service provider corporation operates several group homes. Thus each group home is a subunit of the larger organization. The group home PERFORMANCE MEASURES are related to the quality of life of the individuals in the group homes, and are therefore best thought of as efficiency measures. For example, growth in adaptive behavior/independent functioning per unit of staff time or per dollar would be useful measures of performance. The SIZE MEASURE in the group home situation is simple: the number of people living in the home.

According to Gooding and Wagner's meta-analysis, then, we should expect to find smaller group homes producing more positive outcomes.

The organizational literature reviewed here includes more than 100 pieces of primary research. From them, no clear consistent pattern of the organization size and effectiveness relationship emerged, until the meta-analysis of Gooding and Wagner (1985). They showed that prior studies had varied in their levels of analysis (organization or subunit), their performance measures (absolute or relative), and their size measures.

When these were examined via meta-analysis, a clear pattern did emerge. This pattern called the entire notion of Economy of Scale into serious question. Whether approached from the perspective of the organization or the subunit, when confounding variables were controlled, larger organizations and larger subunits did not produce more per worker.

At the same time that Gooding & Wagner's brilliant meta-analysis called the traditional Economy of Scale assumptions into very serious question, Schumacher's ***"Small Is Beautiful: Economics as Though People Mattered"*** made a compelling case for consideration of outcomes other than economic. Our concern in the human services is precisely suited to this refreshing new perspective – and it came along at the same time that even the most rigorous scientists were questioning whether larger plants really produced more widgets per person per hour. Perhaps our assumptions about size and Economy of Scale, so easily imported from industry into the human services, were dangerously misleading.[27]

The organizational goals of group homes for people with intellectual disabilities are fundamentally human, not financial They are primarily concerned with the quality of life experienced by the people who live in them.[28] Quality is multi-dimensional; it has dozens of aspects. Among them are developmental progress toward increased independence and socially appropriate behavior, integration, relationships, opportunities for choicemaking, satisfaction, individualization, services and supports intensity, attainment of individual goals,

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[27] Such mistakes have been made before. One of the worst in history was the importation of biological models into the social realm. The emergence of Social Darwinism in the late 19th century could be argued to have done as much harm as any of the pernicious ideas that have arisen in the modern world. It led to justification of the abandonment, segregation, isolation, underfunding, and forgetting of people with disabilities, both here and abroad – not to mention the rise of the Eugenics Movement, which fostered sterilization and lent support to the National Socialist movement of Germany.

[28] And the direct support people who work in them – good research must take both into account as a synergistic and mutually reinforcing system.

normalization, health, safety, and physical comfort. Hence indicators of each of these organizational goals must be explored. If the analyses are done properly, the quality and outcome indicators are likely to turn up to be strongly related to size, if the literature from organizational and industrial psychology is any guide.

Appendix C: Educational Literature on Group Size (Class Size)

Literature Review on Group Size in Education - i.e., Classroom Size[29]

An issue that may be closely related to the effectiveness and quality of congregate living (group homes) is the effectiveness of instruction in groups of various sizes. Most studies concerned student achievement (academic outcomes, or simply learning). As we will see, however, it is also important to consider other things – such as which situations produce other important things like student happiness, satisfaction, and morale.

Just on the topic of academic achievement, illustrating the degree of conflict in 100 years of study of this issue, Slavin (1989) wrote:

> The search for substantial achievement effects of reducing class size is one of the oldest and most frustrating for educational researchers. The search is approaching the end of its first century; eventually, it may rival the search for the Holy Grail in both duration and lack of results. (Page 99.)

The situation had been substantially improved by application of the method called "meta-analysis," which means rigorously pooling the findings from a lot of studies, weighting them by how well they were designed, and coming up with the best summary of all of them put together. Glass and Smith (1978) produced the first such analysis. They performed a meta-analysis on the outcomes of 77 studies that included 725 comparisons of student achievement between smaller and larger class sizes. (Glass was, in fact, in the process of creating the concept of meta-analysis while working on the class size literature.) In sharp contrast to past narrative reviews, which had seen the literature as internally inconsistent and inconclusive, Glass and Smith's meta-analysis came to the relatively clear conclusion that smaller classes were associated with superior achievement outcomes.

Cooper (1989) suggested caution, coupled with a firm conviction that the weight of the evidence was on the side of smaller classes:

> Reviewers of the class size literature disagreed over whether a reduction in instructional group size has its intended effect ... However, some consensus did emerge ... Reduced class size appeared to be most efficacious with low-ability or disadvantages students when reductions were in the range typically associated with Chapter 1 programs. Such reductions may not only lead to higher achievement but to better student and teacher attitudes and morale and to an enrichment of the core curriculum. (Page 98.)

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[29] Adapted and extended from Conroy, J. (1992). *Size and Quality in Residential Programs for People with Developmental Disabilities*. A Dissertation Submitted to the Temple University Graduate Board in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy. Philadelphia: Temple University.

Slavin (1989) was skeptical, and did the entire meta-analysis over again, calling his new approach "best-evidence synthesis." Using exactly the same studies as Glass and Smith, and even their own tables, Slavin showed that the average effect of the smaller class size on achievement was no more than about 13% of a standard deviation. In statistical terms, that is a very small effect.

Equally interesting, multiyear studies showed that initial gains faded after a year or two, suggesting that smaller class sizes might have, not only small benefits, but temporary benefits as well. The studies in his analysis reduced class sizes from an average of 27 to 16 students. Yet the effects were very small indeed. In trying to explain why this might be so, Slavin's strongest suggestion was that *"teachers' behaviors do not vary very much with size of classes."* The implication was that behaviors might change slightly, but in the size range of real world classrooms, teachers really did not markedly change how they taught students whether they had 16 or 27 in their class.

Most importantly for our current concerns about residential homes, Slavin also showed that the major educational effects, even in Glass and Smith's own tables, occurred in the very small "classes" of size 1 to 3. From that, Slavin inferred that class size was the wrong focus for those concerned with national policy. For students such as those served by educational programs aimed at children in poverty, what would be most beneficial was not smaller classrooms, but individual or extremely small group tutoring. This may be a key finding for the search for quality in residential settings for people with intellectual & developmental disabilities: we need to aim above all for situations that support frequent one to one interactions.

But academic achievement, while it is the primary purpose of schools, is not everything. Slavin made a major concession when he mentioned factors other than achievement:

> Of course, it is important to note that reductions in class size do seem to have significant effects on other variables, such as teacher and student morale (Glass et al., 1982). Reducing class size may be justified on morale and other quality-of-life grounds. However, as a means of increasing student achievement, even substantial reductions in class size have little apparent impact.

It is most intriguing that Slavin, who so strongly believes that the achievement claims are nonsense, is willing to consider the notion that smaller class sizes produce other kinds of significant benefits. basically, even he admits that the evidence is fairly clear that people like smaller classes better. They are

happier in them. The quality of life may be superior in smaller classes. This may be an important clue for the present effort, which is concerned with quality of life as much as behavioral outcomes.

Moreover, Slavin agrees that the evidence supports a notion that size may become very important when class size drops to three or fewer, a conclusion that may be highly related to group home models. Pennsylvania limited group home size to three people for more than 20 years, but then began to approve larger ones – with quality impacts that have been widely suspected, but not studied with rigor.[30]

In summary, the classroom size literature achieves consensus about only four findings: (1) smaller classes are usually found to be related to slightly better student achievement, but mostly in the lower grades; (2) smaller classes are consistently found to be "better" in terms of indicators of quality other than student achievement such as satisfaction and morale; (3) large differences in achievement and qualities of schooling are not found until size drops below 10; and (4) dramatic improvements in student achievement are only found in the extremely small "tutoring" situations in which a single teacher is alone with just one or a very few students.

This fourth finding parallels a conclusion from the intellectual disabilities literature, that the best results come from situations in which single support workers are alone with a very small number of people.

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[30] Personal communication with leaders of three provider agencies, 2007.

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The need for substance abuse after-care: Longitudinal analysis of Oxford House

Leonard A. Jason *, Margaret I. Davis, Joseph R. Ferrari

DePaul University, United States
Edward Anderson, University of Texas, United States

Abstract

Aims: There is a need to explore the processes of social support and self-efficacy change over time among individuals in recovery homes, and to assess the extent to which residents remain abstinent, obtain and maintain employment, refrain from criminal activity, and utilize health care systems both while within the and after leaving such settings.
Design: Residents were recruited and interviewed at an initial baseline phase and then re-interviewed at three subsequent 4-month intervals.
Setting: Oxford Houses are recovery home residences for individuals with substance abuse and dependence problems who seek a supportive, democratic, mutual-help setting.
Participants: A national US sample of Oxford House residents ($n = 897$: 604 men, 293 women).
Measurements: Information was gathered on abstinence, social support, self-efficacy, employment, criminal history, and medical care utilization.
Findings: Change in cumulative abstinence was predicted by support for alcohol use, abstinence self-efficacy, and length of residency in OH (i.e., less than versus ≥ 6 months), even after controlling for initial time spent in OH.
Conclusions: Results suggest that receiving abstinence support, guidance, and information from recovery home members committed to the goal of long-term sobriety may enhance residents' abstinence self-efficacy and enable persons recovering from alcohol and other drug addiction to reduce the probability of a relapse.
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Keywords: Recovery homes; Substance abuse; Social support; Self-efficacy; Oxford House

* Corresponding author. Center for Community Research, DePaul University, 990 W. Fullerton Ave., Suite 3100, Chicago, IL 60614, United States. Tel.: +1 773 325 2018; fax: +1 773 325 4923.
   E-mail address: Ljason@depaul.edu (L.A. Jason).

1. The need for substance abuse after-care

Substance-related disorders pose serious health threats and exact significant costs to individual users, their families and friends, and society. Despite increased knowledge regarding the harmful consequences that result from substance abuse, as well as persistent efforts to combat these problems, data from the 2003 National Survey on Drug Use and Health (SAMHSA, 2004) reveals that rates of use and abuse of legal and illicit psychoactive-substances have remained relatively stable. Acute treatments help patients achieve abstinence, but relapse rates following treatment are substantial. An important component of relapse appears to be immediate re-exposure to risks associated with one's ongoing living situation (e.g., high substance availability, family and peers non-supportive of recovery, interpersonal conflict, poorly structured time). Drug-free housing that supports recovery, risk avoidance, and employment might heighten one's chances of recovery (Jason, Olson, Ferrari, & Davis, 2004).

There is currently a rising interest in mutual-help groups and in self-help influenced treatments that offer an alternative to professional treatment and after-care. A mutual-help initiative that combines 12-step support within a network of community-based recovery homes for substance abuse is called *Oxford House* (OH). OH was established in 1975 for persons who seek a supportive, mutual-help, residential setting with recovering peers in order to develop long-term sobriety skills. To date, there are over 1200 OHs across the USA, as well as over 30 homes in Canada and eight in Australia. Each house is a rented, multi-bedroom dwelling for same-sex occupants, located in low-crime, residential neighborhoods, and each operates democratically by majority rule and residents govern by electing house officers (e.g., President, Secretary, Treasurer) every 6 months. Houses are not over-crowded and rarely are there more than 12 people in a house. Similar to AA, they are financially self-supported and there are no professionals involved. However, unlike AA there is no single, prescribed course for recovery that all members must follow. Similar to AA, members of an OH receive abstinence support from peers, which has been shown to be an important factor for successful outcomes (Longabaugh, Beattie, Noel, Stout, & Malloy, 1993).

Longabaugh et al. (1993) have proposed that the presence or absence of social support that advocates abstinence support may be related to recovery from substance abuse. That is, successful substance abuse outcomes might be most likely when one has social support networks that discourage substance use and advocate abstinence. In addition, the development of self-efficacy has been implicated as a critical factor in resisting the urge to use drugs and alcohol in high-risk situations after treatment (Solomon & Annis, 1990), and in maintaining long-term abstinence (Rychtarik, Prue, Rapp, & King, 1992). Thus, social factors or environments that promote the development of self-efficacy should reduce the likelihood of substance abuse relapse. Given the peer-based mutual-support approach to addiction recovery that OH might promote, it is possible that residents of OH gain both abstinence social support and abstinence self-efficacy in these environments, which might lead to more successful maintenance of abstinence over time.

Prior studies with Oxford House on client-demographic profiles that generally match the typical profile characteristics reported on recovering substance abusers from more traditional programs (e.g., Jason et al., 2004). In a cross-sectional study of 87 residents, Davis and Jason (2005) found that length of residency in OH was significantly related to decreased social support for alcohol and drug use and increased self-efficacy for abstinence; however, social support for alcohol/drug use fully mediated the link between length of residency and abstinence self-efficacy for women, but not for men. There is a need to examine abstinence social support and abstinence self-efficacy among larger longitudinal samples of OH residents.

The aim of the present study was to explore the processes of social support and self-efficacy change over a 1-year period of time among a national sample of OH residents. In addition, we examined the

extent to which OH residents remain abstinent, obtain and maintain employment, refrain from criminal activity, and utilize health care systems both while within the OH and after leaving such settings. Length of time was considered an important predictor, as it has been found that a six or more month stay in OH is considered optimal for residents to obtain the most benefits from this recovery home experience (see Jason, Olson, Ferrari, & Lo Sasso, in press). It was hypothesized that change in cumulative abstinence would be predicted by support for alcohol use, abstinence self-efficacy, and length of residency in OH (i.e., less than versus ≥ 6 months). We also examined whether support for substance use played a direct role in abstinence or whether its influence was mediated by abstinence self-efficacy.

2. Methods

2.1. Procedure

Analyses of records provided by Oxford House, Inc. (OH) using a geographical information systems program (GIS) indicated that the majority of OHs across the United States clustered in five regions. These cluster areas included: Washington/Oregon, Pennsylvania/New Jersey, North Carolina, Illinois, and Texas. Therefore, in the present study, participants were recruited from OHs clustered in these five geographic regions (total houses assessed = 170).

Participants for this study were recruited through two methods. The method soliciting the most participants (*n* = 797, 88.9% of the sample) utilized an announcement that was published in the monthly OH newsletter distributed by OH, Inc. The announcement indicated that we were conducting a national study and provided contact information. We then contacted OHs within the target geographic areas via letters addressed to House Presidents, conducted follow-up phone calls to the houses, and where possible members of the research team arranged to visit houses. Of 189 houses that were approached, 169 (89.4%) houses had at least one individual who agreed to participate in the study and the average number of participants per house was 4.7 (there were an average of 7.1 individuals per house). For the second method, 100 individuals filled out the baseline questionnaires at an annual OH Convention. There were approximately 300 people at this convention, and the authors attempted to secure a sample of those attending the Convention (a table was set up in a room where individuals could complete the questionnaires with our research staff). We recognize that this is a convenience sample of those who attend the conference and elected to participate, and self-selection factors were presumably in operation. However, analyses of data collected at the Convention versus data collected using the first method did not reveal significant differences in outcome variables.

In each case, the longitudinal nature, purpose, and goals of the study were explained to the potential participants. Staff members also explained that participation was entirely voluntary, withdrawal from participation without pressure was possible at any time, and the consent form was reviewed in detail with each participant. After completing the baseline surveys, each participant received a $15 payment. There were three subsequent waves of data collected at 4-month intervals (i.e., at 4, 8, and 12 months) and $15 payments were made to participants following each survey. Data were gathered by research staff who primarily administered questionnaires in person to the participants. Some data were collected by telephone, particularly when an individual had left an Oxford House. As a measure of reliability of participants' self-reports of alcohol and drug use, upon completion of the final surveys, research staff interviewed a random sample of the fourth wave participants' *Important Person*, who was a person

identified by each participant (at the first interview) as someone who would be knowledgeable about the participant's alcohol and drug use.

2.2. Measures

2.2.1. Addiction severity index

The *Addiction Severity Index-lite* (ASI; McLellan et al., 1992) is a reliable and well validated instrument that assesses problem areas commonly related to substance abuse including medical status, drug use, alcohol use, illegal activity, family relations, family history, and psychiatric condition. We administered the entire scale at the baseline and portions of it (viz. related to employment and criminal involvement) at the final, fourth follow-up assessment. McLellan et al. (1992) indicate that it is appropriate and psychometrically sound to administer only sub-sections of this scale. The following information was derived from the ASI along with socio-demographic data: substance abuse history, physical and mental health information, and criminal activity. In each area, objective questions measure the number, extent, and duration of problem symptoms in the person's lifetime and in the past 30 days.

2.2.2. Alcohol and substance abuse

At the baseline and at each of the subsequent follow-up waves, participants were administered a modified version of Miller and Del Boca's (1994) *Form 90 Timeline Follow-back*, which measures general health care utilization and residential history, and past 90-day alcohol and drug use. The Form 90 has been reported to have good reliability for all key summary measures of alcohol consumption and psychosocial functioning and moderate reliability for most frequently used illicit drugs. Consistency of self-reported drinking has not been found to suffer across test–retest interviews (Tonigan, Toscova, & Miller, 1996). Even though the intervals in the present study were 4 months, the instrument was used to capture alcohol and drug usage during the last 90 days of the 4-month period.

2.2.3. Important people and activities inventory

At baseline and at each follow-up assessment, participants also completed a modified version of Clifford and Longabaugh's (1991) *Important People and Activities Inventory* (IPA) that solicited information regarding individuals' social support networks related to substance use and abstinence. This scale provides detailed information regarding the composition and utilization of individuals' support networks. In the first section of the IPA, respondents list the names of persons (>12 years old) who have been important to them in the past 3 months. Respondents also provide information on how often others use alcohol or drugs during activities that are important to the participant (Beattie et al., 1993). This measure yields 11 indices, including an overall *Composite Support Index* (CSI) and a *support for drinking/drug use* score representing the extent to which an individual's network is supportive of substance use versus abstinence. While the original IPA scale elicits information with respect to alcohol use only, in the present study, additional items were added to assess support for drug use (independent of alcohol use). We also used an index capturing the percentage of abstainers and recovering individuals in respondents' social networks (calculated by dividing the number of abstinent and recovering persons identified in an individual's network by the total number of persons in one's social network).

2.2.4. Alcohol and drug abstinence self-efficacy

At baseline and each of the three follow-up sessions, all participants were administered the 20-item *Alcohol Abstinence Self-Efficacy* scale (AASE; DiClemente, Carbonari, Montgomery, & Hughes, 1994) and a slightly modified version with 20 items to measure *Drug Abstinence Self-Efficacy* scale (DASE). The AASE is a self-report measure derived from Bandura's (1986) cognitive-behavioral self-efficacy theory and based on empirical studies of high-risk situations for relapse (e.g., DiClemente, Fairhurst, & Piotrowski, 1995). Instructions for the AASE asked respondents to imagine themselves in each of 20 situations and to indicate how confident they were that they would not drink in each situation. Individuals rated their level of confidence to not use alcohol on a 5-point Likert scale (1=*not at all confident*, 5=*extremely confident*). The DASE version was identical to the AASE except that the words "drink alcohol" were replaced by the words "use drugs" in order for respondents to answer regarding their confidence that they would not to use drugs in each of the 20 situations. The alphas for the AASE and DASE were 0.98 and 0.99, respectively.

2.2.5. Statistical analysis

Latent growth curve analysis was used to model trajectories of variables related to participants' rate of change in abstinence during the time of their participation in the current 1-year longitudinal study (baseline, 4-month, 8-month, and 1-year assessments). Latent growth curve analysis is a form of multilevel modeling in which separate growth curves are estimated within individuals. Latent growth curve analysis has been applied to the study of substance use outcomes in preventive interventions (Brown, Catalano, Fleming, Haggerty, & Abbott, 2005), variations in drinking trajectories (Greenbaum, Del Boca, Darkes, Wang, & Goldman, 2005), the structure of aggression and drug use (Farrell, Sullivan, Esposito, Meyer, & Valois, 2005), and normative beliefs and substance initiation (Lillehoj, Trudeau, & Spoth, 2005). The widespread use of growth curve models reflects the advances made in longitudinal analysis in the previous two decades (Shadish, 2002).

The dependent measure for the present growth curve analysis was the variable *cumulative days abstinent*. This variable had the following properties: (a) ratio-scaled, (b) showing systematic change (regular, time-related increases or decreases), and (c) having increasing variability over time. These properties were necessary in order for a model to identify a common growth factor. In other words, to examine change over time it is necessary that a variable reflect "growth over time," such as height or weight. Rate of change in abstinence represents the most accurate history of substance use available. The repeated assessments provide greater sensitivity to detect departures from complete abstinence. In addition, as this is a large sample, there is adequate power to detect small effects.

Because residents in this sample had lived in an OH ranging from a period of only a few days to 9 years at baseline data collection, it was most appropriate to analyze only the 1-year prospective data, rather than rely on retrospective recall regarding substance use prior to the commencement of the study. Thus, rate of change was calculated as a function of the cumulative numbers of days abstinent from alcohol or drugs, beginning with the time of the first survey.

In regression analyses, we calculated an observed rate of change in sobriety. This variable examined a rate of change calculated by the number of actual days sober divided by the total possible days sober. A rate of change, or slope, equal to 1.00, indicates that the individual remained alcohol- or drug-free during each day of the 12-month study (i.e., number of days abstinent is equal to number of days participating in the study). A trajectory with a slope less than 1.00 indicates some substance use during their participation in the current study.

3. Results

Statistical analyses were performed in two stages: descriptive analyses exploring the sample and latent growth curve analysis investigating model trajectories of variables related to abstinence. Results of data analyses indicated no significant differences between participants based on data collection method (in person versus by telephone). Of the random sample of collateral informants who were contacted regarding participants who reported they were abstinent from drugs throughout the study ($n=114$), 98% reported consistently regarding participant's drug abstinence and 97% furnished collateral reports that were consistent with participants' reports of abstinence from alcohol ($n=111$).

3.1. Descriptive analyses

Characteristics of the sample at baseline are presented in Table 1, reported separately for females and males. We felt that it was important to examine these data based on possible gender differences, as Davis and Jason (2005) found that gender moderated the relationship between social support and abstinence self-efficacy. Furthermore, there is considerable evidence that women and men react differently to after-care services (DeLeon, 1997). At baseline, the sample consisted of 293 female and 604 male residents. Participants were ethnically diverse, with 58.4% being Caucasian, 34.0% African American, 3.5% Hispanic, and 4% other. Regarding marital status, 49% were single/never married, 46.2% were divorced/widowed or separated, and only 4.8% were married. On average, 69.3% of the respondents report being employed full-time and 13.9% part-time, while 11.6% reported being unemployed and 3.8% were retired or disabled. The average age of sample participants was 38.4, and the average total monthly income was $981.80. Most participants reported multiple alcohol and drug dependencies, as well as prior participation in numerous substance abuse treatment programs. Thus, it is evident by their substance use and treatment histories that this sample represents a chronic substance abusing population.

As noted in Table 1, the women and men in this sample reported fairly similar profiles in terms of ethnicity, marital status, and current legal status. However, women in comparison to men were younger and had significantly less employment, employment income, education, time in OH, and number of alcohol treatments, but women reported significantly more use of psychological medications, attempted suicide, and physical and sexual abuse. Additionally, although the men in this sample had used various substances for significantly longer lengths of time than the women, the pattern of lifetime abuse of drugs was similar for women and men (e.g., alcohol was used for the longest amount of time, followed by cannabis, cocaine, and amphetamines respectively). Further, on average, both women and men reported histories of numerous charges, convictions, and having spent time incarcerated. Although men had significantly higher rates with respect to historical legal issues, a slightly higher percentage of women were currently on probation or parole, awaiting charges, trial, or sentencing, and who entered Oxford House based on prompting by the legal system.

3.2. Outcome characteristics across waves 1 through 4

Descriptive variables related to the key outcome areas for the sample across the four survey waves are presented in Table 2. These variables depict participants' use of alcohol and drugs, employment, involvement with the legal system, utilization of the health care system for medical, psychological, and

Table 1
Baseline mean frequencies and percentages of sociodemographic characteristics by gender

Descriptor variable	Sample *percentage*	Women *percentage*	Men *percentage*	Statistical significance
Ethnicity				
Caucasian	58.4	57.7	58.8	
African American	34.0	34.5	33.8	
Hispanic/Latino	3.5	2.4	4.0	
Other	4.2	5.5	3.5	
Marital status				
Never married	49.0	48.8	49.2	
Divorced, widowed, or separated	46.2	44.7	46.8	
Married	4.8	6.5	4.0	
Employment status [a]				
Full-time	69.3	60.6	73.5	**
Part-time	13.9	17.8	11.9	**
Unemployed	11.6	17.4	8.8	**
Retired/disabled	3.8	2.1	4.6	
Psychological status [b]				
History of psych meds	43.0	55.0	37.1	**
Attempted suicide	30.1	42.5	24.0	**
History of physical abuse	46.1	65.1	20.7	**
History of sexual abuse	35.3	72.4	33.3	**
1 or more inpatient treatments	40.1	44.9	37.8	
1 or more outpatient treatments	40.0	45.3	37.6	
Legal status				
On probation/parole [c]	30.3	32.3	29.3	
Awaiting charges, trial, sentencing [c]	9.0	10.6	8.3	
OH entry prompted by legal system [c]	13.7	14.1	13.4	

Descriptor variable	Sample	Women	Men	Statistical significance
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Age [d]	38.4 (9.2)	36.5 (8.5)	39.4 (9.4)	**
Education [d]	12.6 (2.1)	12.4 (2.3)	12.8 (1.9)	**
Income ($)				
Employment [e]	794.0 (887.6)	563.8 (655.4)	903.3 (960.2)	**
Illegal activities [e]	2.7 (53.6)	.5 (7.5)	3.8 (64.8)	
Total income [e, f]	981.8 (867.5)	750.7 (734.9)	1087.8 (918.0)	**
Time in OH [g]	10.8 (15.6)	8.6 (13.2)	11.9 (15.6)	**
Time since last alcohol use [d]	1.7 (2.2)	1.2 (1.6)	1.9 (2.4)	**
Time since last drug use [d]	1.8 (2.8)	1.4 (2.4)	2.0 (3.0)	**
Lifetime substance use [d]				
Alcohol	18.3 (10.3)	15.0 (9.5)	19.9 (10.3)	**
Alcohol to intoxication	14.4 (10.9)	11.7 (10.1)	15.7 (11.1)	**
Heroin	2.6 (6.6)	2.3 (5.4)	2.7 (7.1)	
Methadone	0.4 (2.2)	0.5 (2.3)	0.4 (2.1)	
Other opiates/analgesics	2.3 (6.0)	2.3 (5.7)	2.2 (6.1)	
Barbiturates	1.9 (5.4)	1.9 (5.3)	2.0 (5.5)	
Sedative/hypnotics/tranq	2.5 (6.1)	2.9 (6.1)	2.4 (6.1)	
Cocaine	8.3 (8.1)	7.5 (7.6)	8.7 (8.3)	

Table 1 (*continued*)

Descriptor variable	Sample	Women	Men	Statistical significance
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Lifetime substance use [d]				
Amphetamines	4.1 (7.0)	4.3 (7.0)	4.1 (7.0)	
Cannabis	10.5 (10.5)	8.0 (9.2)	11.7 (10.9)	**
Hallucinogens	3.2 (6.1)	2.5 (5.3)	3.5 (6.5)	*
Inhalants	1.1 (4.2)	1.2 (4.6)	1.0 (4.0)	
More than 1 substance	10.4 (10.5)	8.6 (9.2)	11.3 (10.3)	*
Substance abuse treatments [b]				
# of alcohol treatments	2.8 (4.2)	2.3 (3.8)	3.0 (4.4)	*
# of drug treatments	2.9 (3.5)	2.8 (2.6)	2.9 (3.9)	
Legal history [b]				
Times charged	10.3 (15.0)	8.3 (14.5)	11.3 (15.2)	**
Times convicted	3.1 (5.8)	2.5 (4.6)	3.4 (6.3)	*
Months incarcerated	15.8 (36.5)	7.6 (18.6)	19.7 (41.9)	**
n	897	293	604	

[a] Within the past 3 years.
[b] Lifetime data.
[c] Currently.
[d] In years.
[e] In the past 30 days.
[f] Total income comprises dollars received from employment, unemployment compensation, DPA, pension, benefits or social security, mate, family or friends, and illegal activities.
[g] In months.
 * $p \leq 0.05$, two-tailed.
** $p \leq 0.01$, two-tailed.

substance abuse treatment, self-efficacy for abstinence from alcohol and drugs, and abstinence social support over the span of the study. Repeated measures statistical tests reported in Table 2 are based on similar numbers across waves.

Table 2 shows that 607 participants from the initial measurement wave (68% of the sample) remained in the study at wave 4,[1] and of this group, only 13.5% reported having *used either drugs or alcohol* at the

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[1] Using baseline data, we examined if there were any differences between those who were interviewed versus those who were not interviewed at wave 4. *Independent sample t-tests* and *chi-square analyses* indicated that there were no significant differences for ethnicity, marital status, and years of education, employment status, income, psychological status, or prior alcohol/drug treatments between those participants who completed wave 4 versus those individuals who did not complete wave 4. However, those who were not available to be interviewed compared to those who were interviewed at wave 4 had higher baseline substance use [percent who used any substances in the past 90 days=22.1% versus 12.6%, $\chi^2(1, N=895)=13.52, p<0.01$; percent who used drugs in the past 90 days=19.4% versus 10.4%, $\chi^2(1, N=895)=13.55, p<0.01$; and percentage who used alcohol in the past 90 days=14.2% versus 8.1%, $\chi^2(1, N=895)=7.96, p<0.01$], had a shorter total length of alcohol sobriety, 1.4 versus 1.8 years, $t(2, 895)=-2.98$, $p<0.01$, and a shorter total length of drug sobriety, 1.4 versus 2.0 years, $t(2, 895)=-3.27, p<0.01$, although they had less total lifetime years using alcohol, 12.7 versus 15.2 years, $t(2, 870)=-3.11, p<0.01$. Additionally, those unable to be surveyed compared to those surveyed at wave 4 were more likely to be awaiting charges, trial, or sentencing, 7.6% versus 12.1%, $\chi^2(1, N=895)=4.78, p<0.05$, respectively, and more likely to have been incarcerated within 90 days prior to baseline, 12.2% versus 5.3%, $\chi^2(1, N=895)=13.19, p<0.01$. Those who did not complete the study were also younger [36.8 versus 39.2 years, $t(2, 891)=-3.71, p<0.01$], had less time living in an OH [7.8 versus 12.3 months, $t(2, 886)=-4.25, p<0.01$], and had lower AASE [78.4 versus 81.8, $t(2, 885)=-2.24, p<0.01$] and lower DASE [78.3 versus 81.4, $t(2, 885)=-1.93, p<0.01$] scores.

Table 2
Outcome characteristics across study waves 1 through 4

Descriptor variables	Wave 1	Wave 2	Wave 3	Wave 4
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
Alcohol/drug use[1]				
% who used alcohol or drugs	15.7	10.5	9.7	13.5
% who used alcohol	10.1	5.0	7.7	10.3
% who used drugs	13.3	9.0	7.0	9.8
Days consumed alcohol	2.2 (9.1)	1.4 (8.9)	1.8 (9.5)	3.7 (14.9) **
Days used drugs	5.5 (20.5)	3.7 (15.6)	2.3 (11.0)	5.6 (24.0) **
Employment				
% employed [a]	81.5	86.6	83.3	79.5
Days paid for work [a]	42.0 (28.0)	49.8 (26.5)	50.5 (27.0)	48.4 (40.4) **
Employment income [b]	794.0 (887.6)			941.9 (960.8) **
Total monthly income [b]	981.8 (867.5)			1133.7 (970.6) **
Legal status [a]				
% incarcerated	7.5	3.4	3.4	4.8
Days in jail	1.3 (7.0)	0.7 (6.1)	0.7 (6.3)	2.0 (12.7)
Days in prison	0.6 (6.3)	0.2 (3.5)	0.5 (6.0)	1.44 (11.0)
Medical status [a]				
Days in hospital for medical problems	0.5 (3.4)	0.3 (1.5)	0.8 (4.4)	0.8 (6.3)
Visits to doctor, nurse, p.a., etc.	2.6 (7.9)	2.4 (7.2)	2.1 (5.9)	2.0 (5.7)
Days taking Rx for medical problems	21.3 (36.1)	22.4 (38.7)	21.7 (36.8)	22.6 (37.2)
Psychological status				
Days experienced psyc problems [b]	3.6 (8.0)			3.9 (8.2)
Days taking Rx for psyc problems [b]	0.4 (0.5)			0.2 (0.4)
Days in residential Tx for psyc problems [a]	1.1 (7.1)	0.4 (5.3)	0.5 (4.6)	0.4 (5.2)
Sessions with counselor for psyc problems [a]	2.9 (10.1)	1.8 (6.5)	1.4 (6.7)	1.6 (5.7) **
Alcohol/drug treatment [a]				
Days attended 12-step meeting	44.9 (28.1)	40.5 (26.9)	35.1 (27.0)	33.4 (29.4) **
Days in residential drug treatment	7.1 (20.3)	1.6 (10.4)	1.1 (8.1)	1.1 (8.6) **
Days in residential alcohol treatment	6.5 (19.4)	1.1 (8.7)	.7 (5.7)	1.0 (7.8) **
Sessions with counselor for alc. problems	4.9 (14.0)	2.2 (7.8)	1.4 (7.5)	1.6 (7.8) **
Sessions with counselor for drug problems	5.4 (14.9)	2.3 (7.7)	1.6 (8.0)	1.4 (8.1) **
Days in hospital for detox	0.6 (3.5)	0.1 (1.1)	0.2 (1.4)	0.1 (0.7) **
Days in residential detox	0.3 (2.4)	0.1 (0.9)	0.1 (1.6)	0.0 (0.4)
Self-efficacy—alcohol [a]	80.7 (21.2)	80.4 (23.8)	79.3 (25.2)	84.6 (20.1) **
Self-efficacy—drug [a]	80.4 (22.3)	80.8 (23.8)	81.1 (25.0)	84.6 (21.3) **
% of network abstinent/in recovery [a]				
For alcohol use	75.0	79.0	79.0	77.0 **
For drug use	90.0	94.0	94.0	93.0 **
n	897	685	588	607

[a] In the past 90 days.
[b] In the past 30 days.
** $p \leq 0.01$, two-tailed, based on repeated measures analyses.

final assessment, and the average number of days they consumed alcohol or used drugs was 3.7 and 5.6, respectively. It appears that the highest rates of substance use for this sample occurred during waves 1 and 4, with lower rates at waves 2 and 3, but overall, the rates were relatively low across waves. Throughout

the study, the rate of *employment* for participants ranged from a high of 86.6% to a low of 79.5%. At wave 4, their average monthly income from employment was \$941.90, which was a significantly higher than their baseline employment-related income.

In regard to *legal status*, there was a directional decrease in the percentage of participants incarcerated between the start and end of the study. In contrast, the *medical status* of participants, which included number of days spent in hospital, visits to the doctor, and days taking prescription drugs, remained relatively stable across the four waves. With respect to *psychological status*, as evident in Table 2, over the course of the study, there were directional decreases in the days spent in residential treatment and significant decreases in sessions with a counselor for psychological problems. Participants evidenced a significant decrease over the four waves with respect to *alcohol and drug treatment*, which included the number of days that participants attended 12-step meetings, days in residential and outpatient treatment, as well as sessions with substance abuse counselors and days spent in hospital detoxification programs. At the final assessment, participants' *self-efficacy for remaining abstinent from alcohol and from drugs* had significantly increased. Significant increases were also noted with the percentage of participants' social network members who were abstinent/in recovery from alcohol use and the percentage of participants' social network members who were abstinent or in recovery from drug use.

3.3. Models of abstinence

As noted above, latent growth curve analysis was used to model trajectories of variables related to participants' rate of change in abstinence during the time of their participation in the current 1-year longitudinal study, and a trajectory with a slope less than one indicates some substance use during their participation in the current study. Of the 748 cases in which a slope could be calculated (i.e., participants in which we collected more than one wave of assessment data), 79.4% of the alcohol abstinence trajectories and 80.5% of the drug abstinence trajectories have slopes equal to 1. The observed slopes from these trajectories were treated as dependent variables in OLS regression analyses. Sample size for this analysis is reduced somewhat further by missing data on some of the predictors. Results from these analyses for cumulative alcohol sobriety are presented in Table 3.

Our first hypothesis was that change in cumulative abstinence would be predicted by support for alcohol use, abstinence self-efficacy, and length of residency in OH (i.e., less than versus ≥ 6 months; length of residency in OH was the variable that assessed the participant's residency in the OH during the course of the 1 year longitudinal study). We selected these constructs to be tested based on theoretical issues described in the introduction and findings in Table 3. Before testing for these effects, we controlled for a series of socio-demographic and other key variables. Model 1 includes the following control covariates: participant age, years of education, gender, never married versus ever married, African American versus non-African American, lifetime months incarcerated at wave 1, composite alcohol use score on the ASI at wave 1, and initial length of stay in OH (i.e., number of months individuals had resided in OH prior to the wave 1 assessment). Only this last variable was significantly related to the slope of cumulative abstinence.

In Model 2, we entered a contrast that indicated whether an individual left OH prior to 6 months versus stayed at least 6 months. In this model, leaving OH prior to 6 months was associated with a significant reduction in the slope of cumulative abstinence, and the significance of the length-of-initial-stay predictor dropped from a significance of $p < 0.001$ to $p < 0.05$. Support for alcohol use was added in Model 3. This variable was the mean score across available longitudinal assessments of the support for alcohol use

Table 3
Regression models predicting longitudinal slope of cumulative alcohol sobriety ($N=642$)

Parameter	Model 1: covariates only	Model 2: add stayed in OH ≥ 6 months	Model 3: add support for alcohol use	Model 4: add abstinence self-efficacy
Age	0.08	0.05	0.05	0.04
Education	0.03	0.02	0.03	0.02
Sex (female)	0.04	0.08*	0.07	0.05
Never married	-0.01	-0.03	-0.01	-0.04
African American	0.03	0.02	-0.01	-0.01
Lifetime months incarcerated	0.00	-0.01	-0.02	-0.01
Initial alcohol ASI	-0.06	-0.04	-0.03	-0.02
Length of time in OH at w1	0.14***	0.08*	0.08	0.06
Stayed in OH ≥ 6 months	–	0.29***	0.28***	0.24***
Support for alcohol use	–	–	-0.19***	-0.15***
Alc. abstinence self-efficacy	–	–	–	0.25***
R	0.202	0.343	0.392	0.456
R^2	0.041	0.118	0.154	0.208
R^2 change	–	0.077	0.036	0.054
F change	–	54.9***	26.8***	43.2***
NDf	8	9	10	11
DDf	633	632	631	308
F	3.37***	9.36***	11.45***	15.02***

ASI=Addiction Severity Index; OH=Oxford House; *$p<0.05$; **$p<0.01$; ***$p<0.001$.

(using the CSI from the IPA).[2] This predictor also added significantly to the model (R^2 change$=0.036$, $p<0.001$) and predicted lower alcohol sobriety. The final model includes the measure of abstinence self-efficacy. As shown in Table 3, this variable also added significantly (R^2 change$=0.054$, $p<0.001$) and predicted greater cumulative sobriety. Results of predictions of cumulative drug sobriety were similar. (Findings for drug abuse were similar, and these findings can be obtained by writing the first author.)

We next examined whether support for substance use played a direct role in abstinence or whether its influence was mediated by abstinence self-efficacy using a *latent growth curve model* (LGM). It is possible that residents of OH gain both abstinence social support and abstinence self-efficacy, which might lead to more successful maintenance of abstinence over time, and it is also possible that the effects of the abstinence social support on successful maintenance are mediated by self-efficacy. The LGM provides a method for representing individual growth curves as latent variables in a structural equation model. Repeated-measures data are organized into latent intercepts (or "levels") and latent slopes that can be treated as dependent variables in a structural model. In this model, support for alcohol use and abstinence self-efficacy were represented as latent variables with four indicators corresponding to the four repeated assessments. These constructs were fit as single-variable factors rather than as bivariate intercept

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[2] Social support was averaged across the three time points because there was no systematic increase in social support over time and a latent growth curve of social support could not be identified. This is in large part due to the fact that the measure was created as an individual difference measure. In other words, it is designed to describe differences across individuals rather than change within an individual over time. Individual difference measures tend to have high test–retest reliability by definition, and this can be a problem when the intent is to measure a variable that changes over time. However, the lack of identified change does not necessarily mean that OH residents are not experiencing change in support over time. Because a measure is designed to have high stability does not mean that the construct itself is not changing.

and slope factors. Parameter estimates for the structural model for alcohol are given in Fig. 1. The χ^2 (chi-square) for this model was 179.0 with $df = 74$; a number of fit indices suggested acceptable fit to the data (NFI=0.98, RFI=0.98, CFI=0.99, RMSEA=0.04). Results indicated that change in cumulative abstinence, represented by the latent slope variable, was predicted by support for alcohol use, abstinence self-efficacy, and length of residency in OH (i.e., less than versus ≥6 months) even controlling for initial time spent in OH. It should be noted that initial time spent in OH was associated with higher levels of abstinence self-efficacy, although there was no significant relation between time and support for alcohol use. Additionally, length of residency in OH predicted increased abstinence self-efficacy as well as continued abstinence. (Similar findings occurred for drug usage and these data are available by contacting the first author.).

3.4. Staying versus leaving OH

Examining differences between the participants who remained living in an OH throughout the entire study (32.6% of the sample) versus those of those who left by waves 2, 3, or 4 (67.4% of the sample), there were no significant differences for ethnicity, employment status, total income, or psychological status, based on independent sample *t*-tests or chi-square analyses. Compared to participants who stayed in OH across all four waves, individuals who left OH had higher rates of any substance use over the last
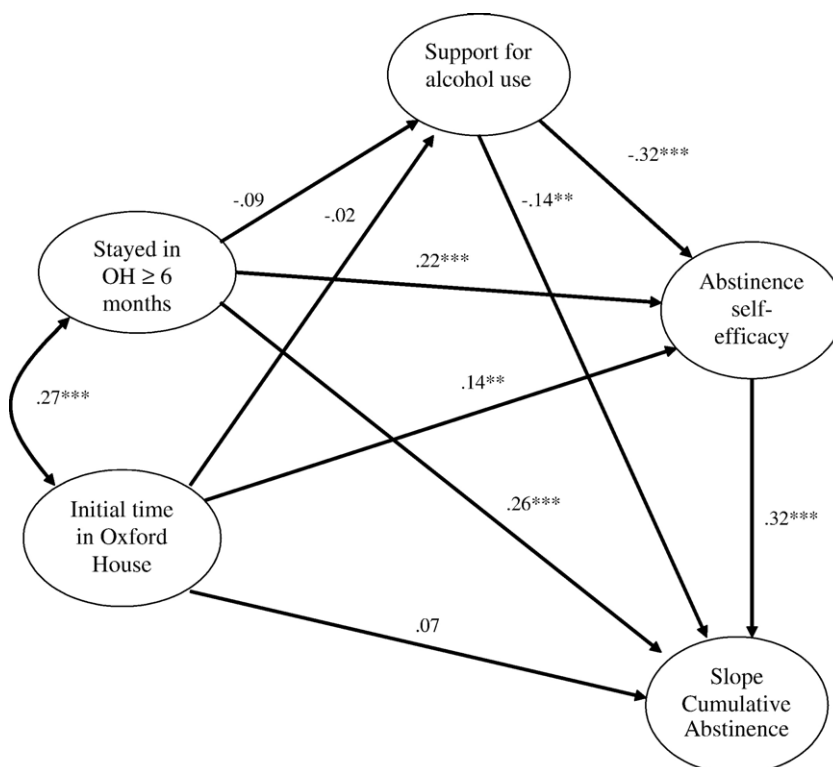

Fig. 1. Results of testing latent growth model regarding alcohol abstinence. Notes: *p<0.05; **p<0.01; ***p<0.001.

90 days at wave 4 [18.5% versus 3.1%, respectively, $\chi^2(1, N=595)=26.43$, $p<0.01$]; however, these findings indicate that 81.5% of those who left the house and were interviewed at the final wave remained consistently alcohol- and drug-free.

Those individuals who were no longer living in an OH at wave 4 compared to continued residents had spent less time in OH at baseline [9.8 versus 17.5 months, $t(2, 593)=5.59$, $p<0.01$] and were younger [38.0 versus 41.6 years, $t(2, 593)=4.49$, $p<0.01$]. Examining wave 4 data, those who had left versus those who remained in an OH spent more days in hospitals for medical problems over the past 90 days [1.2 versus 0.1 days, $t(2, 594)=-1.96$, $p<0.05$], spent more days in residential treatment for drug use in the past 90 days [6.3 versus 5.8 days, $t(2, 593)=-2.14$, $p<0.05$] as well as more time in residential treatment for alcohol use in the past 90 days [1.4 versus 0 days, $t(2, 592)=-2.06$, $p<0.05$], had lower self-efficacy for abstinence from alcohol [82.9 versus 88.7, $t(2, 596)=3.23$, $p<0.01$] and lower self-efficacy for abstinence from drugs [82.8 versus 89.4, $t(2, 596)=3.62$, $p<0.01$], and lower percentage of network members in abstinence or recovery for alcohol use [74.8% versus 80.0%, $t(1, 585)=2.19$, $p<0.05$] and drug use [92.6% versus 95.7%, $t(1, 584)=2.37$, $p<0.05$].

4. Discussion

Our data analytic approach was based on a theoretical framework which posited that change in cumulative abstinence would be predicted by social support for alcohol (or drug) use, abstinence self-efficacy, and length of residency in OH (i.e., less than versus ≥ 6 months). These hypotheses were confirmed, and the results were consistent with research indicating that substance abusers are more likely to maintain abstinence in abstinent supportive settings (Longabaugh, Mattson, Connors, & Cooney, 1994; Longabaugh, Wirtz, Beattie, Noel, & Stout, 1995). It is likely that OH settings promote abstinent support systems, as the present study found that the networks of OH members were mostly composed of individuals who were abstinent or in recovery. An OH recovery home experience of communal living may help develop a sense of bonding with similar others who share common abstinence goals (Ferrari, Jason, Davis, Olson, & Alvarez, 2004; Jason et al., in press). The OH communal living experience also appears to increase self-efficacy to refrain from using alcohol and other drugs. Facilitating this personal resource is important given indications that abstinence self-efficacy is related to more successful abstinence and coping activities during recovery maintenance (DiClemente et al., 1995). Receiving abstinence support in a setting that promotes abstinence self-efficacy may reduce the probability of a relapse among substance abusers.

It was also important to explore the 6-month length of stay in OH criterion given DiClemente et al. (1995) claim that efficacy expectations, which are related to addictive behavior change, stabilize after 6 months of abstinence in accordance to process of change theory (Prochaska & DiClemente, 1992). In addition, other evidence suggests that it may take approximately 6 months for OHs to adequately exert their effects on recovery (Jason et al., submitted for publication). Our results support that staying in OH at least 6 months was related to increased self-efficacy and maintaining abstinence. This outcome suggests that maintaining residency for at least 6 months of time might be a critical factor in promoting positive outcomes. However, it should be noted that, if residents who are found to be using substances are asked to leave Oxford House, some of the association may be a consequence of substance use. But, the theory of abstinent social support networks indicates that residents need to be in the OH environment a certain minimal amount of time to obtain the maximal effects.

The present study suggests that Oxford House is a network of abstinent support settings that is associated with maintenance of abstinence while living in the setting and post-residence. At the final wave 4, only 13.5% of participants reported using either alcohol or drugs, and of those who had left the OH, only 18.5% indicated using any substances. These findings are supportive of the Oxford House model, although the data need to be cautiously interpreted as there was some attrition over the course of the year-long study and there was no control group. Nevertheless, in a separate study (Jason et al., in press), individuals completing substance abuse treatment were randomly assigned to either an OH or usual after-care condition. At a 24-month follow-up, significantly lower substance use rates were found for those in the OH (31%) versus the usual after-care condition (65%). Taken together with the findings of that study, the present study suggests that the OH model may reduce substance abuse relapse rates. The public health implications of these findings are heightened because these OH homes are self-governing and require minimal costs with residents paying their own expenses for housing and food.

Results from the present study also indicate a general trend toward increased employment and income, and low levels of involvement in the legal system related to residency in OH. This result was in contrast to the finding that individuals with substance abuse disorders are more likely to be unemployed (Treatment Improvement Protocol 38, 2000) and have involvement with the criminal justice system. Those individuals with substance abuse problems often lack the benefits of employment, which provides a source of income, requires managing the use of time, improves self-esteem, and is associated with reductions in substance use (Copeland & Hall, 1992). In the present study, employment income significantly increased over time from $794 to $942 per month and 80% of participants reported being employed by the last assessment. In addition, the percentage of incarceration remained at low levels throughout the study (less than 5% were incarcerated by the wave 4). In part, these findings may reflect other forms of support that may be operating with the house systems (e.g., where peers encourage and help fellow residents to find work) that might help residents obtain stable employment. Additionally, residing in OH may support individual behavior changes that lead to low levels of involvement with the criminal justice system. Residents' successes with respect to maintaining abstinence likely bolster and are bolstered by their heightened ability to obtain and maintain employment, and their reduced association with criminal systems while living within these recovery settings.

4.1. Limitations and future directions

There are several limitations in the present study. For instance, we used a naturalistic follow-up of residents recruited from a large sample of facilities located in states where clusters of OHs are found. There was a considerable range in the study sample with respect to how long participants had been residing in OH at the start of the study. While much outcome research has a standard practice of recruiting participants at roughly the same point in treatment, and another study with OH used such a design (Jason et al., in press) interviewing individuals who just arrived in OHs. However, the present research design allowed the investigators to enroll a larger sample by including all available residents, and then statistically controlling for length of time living in OHs prior to the study start.

Attrition did occur between the baseline and last wave of data collection, and there were a number of differences between those who ultimately dropped out of the study and those who continued to participate.[1] Still, the tracking rates were relatively good for this national sample, and on the primary outcome data, there were only small differences between those who remained in and those who attrited. In addition, we did not use a control group to assess what might occur had residents not been provided this

abstinent supportive environment. However, as noted, a randomized study of Oxford Houses (Jason et al., in press) had findings on substance abuse indices that were in line with present study, and these convergent findings increase confidence in the overall validity and reliability of these results regarding effectiveness.

Finally, there might have been some selection bias in the recruitment effort, with only more motivated residents expressing an interest in participating in this study. As all participants were abstinent at the time of baseline assessment, participants who might have had a negative initial reaction to Oxford House might have left early, and therefore might not have been included in the sample. Clearly, some selection bias did occur with the current sample, and this possibly contributes to the low rates of substance use at the 12-month assessment in the current study (13.5%).

Typically, after treatment for substance abuse, whether in hospital-based treatment programs or therapeutic communities, many patients return to former high-risk environments or stressful family situations. Returning to such settings without a network of people to support abstinence increases chances of relapse (McCusker, Willis, Vickers-Lahti, & Lewis, 1998). As a consequence, alcohol and substance use recidivism following treatment is high for both men and women (Hubbard, Flynn, Craddock, & Fletcher, 2001). It is possible that non-treatment factors may be the best predictors of future recovery status (Vaillant, 1983; Westermeyer, 1989). Programs like OH that provide naturally occurring abstinent social supportive settings might represent effective ways to promote abstinence. Future research is needed to identify whether certain types of residents might have less positive outcomes in OHs, as well as better understanding those person–environment matches that either facilitate or impede recovery.

Acknowledgements

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What Did We Learn from Our Study on Sober Living Houses and Where Do We Go from Here?

Douglas L. Polcin, Ed.D.[*], **Rachael Korcha, M.A.**[*], **Jason Bond, Ph.D.**[*], and **Gantt Galloway, Pharm.D.**[**]

[*]Alcohol Research Group Public Health Institute 6475 Christie Avenue, Suite 400 Emeryville, CA 94608-1010

[**]California Pacific Medical Center St. Luke's Hospital San Francisco, CA

Abstract

Lack of a stable, alcohol and drug free living environment can be a serious obstacle to sustained abstinence. Destructive living environments can derail recovery for even highly motivated individuals. Sober living houses (SLHs) are alcohol and drug free living environments for individuals attempting to abstain from alcohol and drugs. They are not licensed or funded by state or local governments and the residents themselves pay for costs. The philosophy of recovery emphasizes 12-step group attendance and peer support. We studied 300 individuals entering two different types of SLHs over an 18 month period. This paper summarizes our published findings documenting resident improvement on measures of alcohol and drug use, employment, arrests, and psychiatric symptoms. Involvement in 12-step groups and characteristics of the social network were strong predictors of outcome, reaffirming the importance of social and environmental factors in recovery. The paper adds to our previous reports by providing a discussion of implications for treatment and criminal justice systems. We also describe the next steps in our research on SLHs, which will include: 1) an attempt to improve outcomes for residents referred from the criminal justice system and 2) a depiction of how attitudes of stakeholder groups create a community context that can facilitate and hinder the legitimacy of SLHs as a recovery modality.

Keywords

Sober Living House; Residential Treatment; Recovery House; Social Model; Communal Living

Introduction

Research continues to document the important role of social factors in recovery outcome (Polcin, Korcha, Bond, Galloway & Lapp, in press). For example, in a study of problem and dependent drinkers Beattie and Longabaugh (1999) found that social support was associated with drinking outcome. Not surprising, the best outcomes were predicted by *alcohol-specific* social support that discouraged drinking. Similarly, Zywiak, Longabaugh and Wirtz (2002) found that clients who had social networks with a higher number of abstainers and recovering alcoholics had better outcome 3 years after treatment completion. Moos and Moos (2006) studied a large sample of 461 treated and untreated individuals with alcohol use disorders over a 16 year period to examine factors associated with relapse. They found that social support for recovery was important in establishing sustained abstinence. Finally, Bond, Kaskutas and Weisner (2003) reached a similar conclusion in a 3-year follow up

Phone (510) 597-3440 Fax (510) 985-6459 DPolcin@arg.org

study on 655 alcohol dependent individuals who were seeking treatment. Abstinence from alcohol was associated with social support for sobriety and involvement in Alcoholics Anonymous.

A critically important aspect of one's social network is their living environment. Recognition of the importance of one's living environment led to a proliferation of inpatient and residential treatment programs during the 1960' and 70's (White, 1998). The idea was to remove clients from destructive living environments that encouraged substance use and create new social support systems in treatment. Some programs created halfway houses where clients could reside after they completed residential treatment or while they attended outpatient treatment. A variety of studies showed that halfway houses improved treatment outcome (Braucht, Reichardt, Geissler, & Bormann, 1995; Hitchcock, Stainback, & Roque, 1995; Milby, Schumacher, Wallace, Freedman & Vuchinich, 2005; Schinka, Francis, Hughes, LaLone, & Flynn, 1998).

Despite the advantages of halfway houses, there are limitations as well (Polcin & Henderson, 2008). First, there is typically a limit on how long residents can stay. After some period of time, usually several months, residents are required to move out whether or not they feel ready for independent living. A second issue is financing the houses, which often includes government funding. This leaves facilities vulnerable to funding cuts. Finally, halfway houses require residents to have completed or be involved in some type of formal treatment. For a variety of reasons some individuals may want to avoid formal treatment programs. Some may have had negative experiences in treatment and therefore seek out alternative paths to recovery. Others may have relapsed after treatment and therefore feel the need for increased support for abstinence. However, they may want to avoid the level of commitment involved in reentering a formal treatment program. Sober living houses (SLHs) are alcohol and drug free living environments that offer peer support for recovery outside the context of treatment.

Characteristics of Sober Living Houses

Sober Living Houses are structured in a way that avoids some of the limitations of halfway houses. The essential characteristics include: 1) an alcohol and drug free living environment for individuals attempting to abstain from alcohol and drugs, 2) no formal treatment services but either mandated or strongly encouraged attendance at 12-step self-help groups such as Alcoholics Anonymous (AA), 3) required compliance with house rules such as maintaining abstinence, paying rent and other fees, participating in house chores and attending house meetings, 4) resident responsibility for financing rent and other costs, and 5) an invitation for residents to stay in the house as long as they wish provided they comply with house rules (Polcin & Henderson, 2008).

SLHs have their origins in the state of California and most continue to be located there (Polcin & Henderson, 2008). It is difficult to ascertain the exact number because they are not formal treatment programs and are therefore outside the purview of state licensing agencies. However, in California many SLHs are affiliated with coalitions or associations that monitor health, safety, quality and adherence to a peer-oriented model of recovery, such as the California Association of Addiction Recovery Resources (CAARR) or the Sober Living Network (SLN). Over 24 agencies affiliated with CAARR offer clean and sober living services. The SLN has over 500 individual houses among it membership.

While some SLHs use a "strong manager" model where the owner or manager of the house develops and enforces the house rules, contemporary SLH associations such as CAARR and SLN emphasize a "social model approach" to managing houses that empowers residents by providing leadership position and forums where they can have input into decision making

(Polcin & Henderson, 2008). Some houses have a "residents' council," which functions as a type of government for the house.

Recovery Philosophy in Sober Living Houses

Central to recovery in SLHs is involvement in 12-step mutual help groups (Polcin & Henderson, 2008). Residents are usually required or strongly encouraged to attend meetings and actively work a 12-step recovery program (e.g., obtain a sponsor, practice the 12 steps, and volunteer for service positions that support meetings). However, some houses will allow other types of activities that can substitute for 12 step groups, provided they constitute a strategy for maintaining ongoing abstinence.

Developing a social network that supports ongoing sobriety is also an important component of the recovery model used in SLHs. Residents are encouraged to provide mutual support and encouragement for recovery with fellow peers in the house. Those who have been in the house the longest and who have more time in recovery are especially encouraged to provide support to new residents. This type of "giving back" is consistent with a principle of recovery in 12-step groups. Residents are also encouraged to avoid friends and family who might encourage them to use alcohol and drugs, particularly individuals with whom they have used substances in the past (Polcin, Korcha, Bond, Galloway & Lapp, in press).

Purpose

There are several primary aims for this paper. First is to summarize key outcomes from our study, "An Evaluation of Sober Living Houses," which was a 5- year study funded by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) (i.e., Korcha, Polcin, Bond & Galloway, 2010; Polcin, 2009; Polcin & Henderson, 2008; Polcin, Korcha, Bond & Galloway, 2010; Polcin, Korcha, Bond & Galloway, in press; Polcin, Korcha, Bond, Galloway & Lapp in press). Second is to expand on these findings by considering potential implications of our research for inpatient and outpatient treatment and for criminal justice systems. Third is to describe the next steps in our research on SLHs. These include plans to study the community context of SLHs by examining attitudes of community stakeholder groups (e.g., neighbors, local government officials, mental health therapists, criminal justice professionals and practitioners in substance abuse treatment programs). We also describe plans to conduct studies of resident subgroups, such as individuals referred from the criminal justice system.

Data Collection Sites

The study was designed to assess outcomes for 300 individuals entering two types of SLHs: 1) Options Recovery Services (ORS) in Berkeley, California was an adapted model of SLHs in that the houses were associated with an outpatient treatment program. 2) Clean and Sober Transitional Living (CSTL) in Sacramento County, California consisted of freestanding houses that were not affiliated with any type of treatment. The descriptions of CSLT and ORS that follow are summaries of Polcin and Henderson (2008), Polcin (2009) and Polcin, Korcha, Bond, Galloway & Lapp (in press).

Clean and Sober Transitional Living (CSTL)

CSLT is located in Sacramento County California and consists of 16 houses with a 136 bed capacity. Residency at CSTL is divided into two phases. Phase I lasts 30 to 90 days and is designed to provide some limits and structure for new residents. Residents must agree to abide by a curfew and attend at 12-step meetings five times per week. The purpose of these

requirements is to help residents successfully transition into the facility, adapt to the SLH environment, and develop a stable recovery program.

The second phase allows for more personal autonomy and increased responsibility for one's recovery. Curfews and requirements for 12-step attendance are reduced. All residents, regardless of phase, are required to be active in 12-step recovery programs, abide by basic house rules, and abstain from alcohol and drugs. A "Resident Congress" consisting of current residents and alumni helps enforce house rules and provides input into the management of the houses. Although the owner/operator of the houses is ultimately responsible, she/he defers to the Residents Congress as much as possible to maintain a peer oriented approach to recovery. In order to be admitted to CSTL prospective residents must have begun some type of recovery program prior to their application.

Options Recovery Services (ORS)

ORS is an outpatient substance abuse treatment program located in Berkeley, California that treats approximately 800 clients per year. Most of the clients are low income and many have history of being homeless at some point in their lives. Because a large number do not have a stable living environment that supports abstinence from alcohol and drugs, ORS developed SLHs where clients can live while they attend the outpatient program. Currently there are 4 houses with 58 beds. The houses are different from freestanding SLHs, such as those at CSTL, because all residents must be involved in the outpatient program. Most residents enter the houses after residing in a short term homeless shelter located near the program. At admission, nearly all residents are eligible for some type of government assistance (e.g., general assistance or social security disability) and use those funds to pay SLH fees. To help limit social isolation and reduce costs residents share bedrooms. Like other SLH models of recovery, residence are free to stay as long as they wish provide they comply with house rules (e.g., curfews, attendance at 12-step meetings) and fulfill their financial obligations. Also like other SLH models, each house has a house manager who is responsible for ensuring house rules and requirements are followed. ORS does not have any type of Residents Council, but house managers meet regularly with the executive director and have input into operation of the SLHs in during these contacts.

Procedures

Participants were interviewed within their first week of entering a sober living house and again at 6-, 12-, and 18-month follow up. To maximize generalization of findings, very few exclusion criteria were used and very few residents declined to participate. Primary outcomes consisted or self report measures of alcohol and drug use. Secondary outcomes included measures of legal, employment, medical, psychiatric and family problems. Some measures assessed the entire 6 months between data collection time points. Others, such as the Addiction Severity Index, assessed shorter time periods of 30 days or less.

Measures

1) Demographic Characteristics—included standard demographic questions such as age, gender, ethnicity, marital status, and education.

2) Addiction Severity Index Lite (ASI)—The ASI is a standardized, structured interview that assesses problem severity in six areas: medical, employment/support, drug/alcohol, legal, family/social and psychological (McLellan et al., 1992). Each of the six areas is scored for 0 (low) to 1 (high).

3) Psychiatric symptoms—To assess current psychiatric severity we used the Brief Symptom Inventory (Derogatis & Melisaratos, 1983). This 53-item measure assesses severity of psychiatric symptoms on nine clinical scales as well as three global indices. Items are rated on a 5-point scale and ask about symptoms over the past 7 days. We used the Global Severity Index (GSI) as an overall measure of psychiatric severity.

4) Six month measures of alcohol and drug use—These measures were taken from Gerstein et al. (1994) and labeled Peak Density and 6-month abstinence. *Peak Density* is the number of days of any substance use (i.e., any alcohol or drug) during the month of highest use over the past 6 months (coded 0-31). *Six-month abstinence* was a dichotomous yes/no regarding any use of alcohol of drugs over the past 6 months.

5) Arrests—This measure was taken from Gerstein et al. (1994) and was defined as number of arrests over the past 6 months.

Two additional measures were included as covariates because they assess factors emphasized by as important to recovery in SLHs.

6) Alcoholics Anonymous Affiliation Scale—This measure includes 9 items and was developed by Humphreys, Kaskutas and Weisner (1998) to measure the strength of an individual's affiliation with AA. The scale includes a number of items beyond attendance at meetings, including questions about sponsorship, spirituality, and volunteer service positions at meetings.

7) Drinking and drug use status in the social network—These measures were taken from the Important People Instrument (Zywiak, et al., 2002). The instrument allows participants to identify up to 12 important people in his or her network whom they have had contact with in the past six months. Information on the type of relationship (e.g., spouse, friend), amount of contact over the past 6 months (e.g., daily, once or twice a week) and drug and alcohol use over the past 6 months (e.g., heavy user, light user, in recovery) was obtained for each person in the social network. The drinking status of the social network was calculated by multiplying the amount of contact by the drinking pattern of each network member, averaged across the network. The same method is applied to obtain the drug status of the network member; the amount of contact is multiplied by the pattern of drug use and averaged across network members.

Hypotheses

Hypotheses suggested that we would find two types of longitudinal outcomes: 1) Individuals entering the houses with higher severity of problems would show significant improvement between baseline and 6 months and those improvements would be maintained at 12 and 18 months and 2) Individuals entering houses with low severity would maintain low severity at all follow up time points. It was expected that measures of social support for sobriety and 12-step involvement would be associated with primary outcomes.

The study design used repeated measures analyses to test how study measures varied over time. Because the two types of houses served residents with different demographic characteristics, we conducted disaggregated longitudinal analyses for each. For a more complete description of the study design and collection of data see Polcin et al. (2010), Polcin et al. (in press) and Polcin, Korcha, Bond, Galloway and Lapp (in press).

Data Collection

At CSTL we recruited 245 individuals within their first week of entering the houses. Most were men (77%), white (72.5%) and middle age (mean=38, se=0.65). Over 75% had at least a high school education or GED. The most common referral source was self, family or friend (44%) followed by criminal justice (29%) and inpatient treatment (15%). Over a third (35%) of the sample indicated that jail or prison had been their usual housing situation over the past 6 months and few reported any type of stable housing over the past 6 months. Just 7% reported renting an apartment as their primary housing, while 23% reported staying with family or friends and 12% reported homeless as their primary living situation

ORS had 4 houses, where we recruited 55 participants. Most were African American (59%), while 30% were white. The mean age was 43 years (se=1.2). Most residents had completed high school or a GED (73%). Nearly half of the residents had been self referred of referred by family or friends. About 24% were criminal justice referrals and a third had spent some time in a controlled environment during the month before entering the house. Many of the residents had histories of homelessness. When asked to indicate their usual housing situation the past six months, a third indicated homeless or in a shelter.

Follow up rates for CSLT were 72% at 6 months, 71% at 12 months ad 73% at 18 months. However, 89% of the sample (N=218) participated in at least one follow up interview. The proportions successfully followed up at ORS were similar at 12 and 18 months (76% and 71% respectively) but higher at 6 months (86%). To address the issue of missing data from individuals who we were not able to locate for follow up interviews, we used analytic methods that did not require participants to complete 0interviews at all time points to be include in the analysis. These included generalized estimated equations (GEE) and mixed model regressions. In addition, when we compared baseline characteristics of individuals successfully located and interviewed with those lost at follow up we did not find significant differences. However, individuals who we were not able to follow up did have shorter lengths of stay in the SLHs.

Main Findings

Detailed descriptions of analytic methods and statistical results have been reported in Polcin, Korcha, Bond, & Galloway (2010), Polcin Korcha, Bond, & Galloway (in press), and Polcin Korcha, Bond, Galloway & Lapp (in press). Our purpose here is to summarize the most salient and relevant findings for SLHs as a community based recovery option. We then expand on the findings by considering potential implications of SLHs for treatment and criminal justice systems. We also include a discussion of our plans to study the community context of SLHs, which will depict how stakeholder influences support and hinder their operations and potential for expansion.

Retention

Retention of residents in the sober living houses was excellent. Average lengths of stay in both types of sober living houses surpassed the National Institute on Drug Abuse recommendation of at least 90 days to obtain maximum benefit. The average length of stay at ORS was 254 days (se=169 days) and at CSLT it was 166 days (se=163).

Primary Outcomes

As hypothesized, there were two patterns of outcome for our primary outcome variables. One pattern was that residents reduced or stopped their substance use between baseline and 6 month follow up and then maintained those improvements at 12 and 18 months. This was the case for both substance use measures that assessed 6 month period of time: 1) complete

abstinence over the 6 months and 2) maximum number of days of any substance use during the month of highest use. For example, at ORS 6-month abstinence rates improved from 11% at baseline to 68% at 6- and 12-months. At 18 months abstinence was a bit lower, (46%) but still significantly better than the time period before they entered the houses. For CSLT, abstinence improved from 20% at baseline, to 40% at 6 months, 45% at 12 months and 42% at 18 months. Maximum number of days of use per month at ORS on average declined from 19 days per month at baseline, to 3 days at 6 months, 4 days at 12 months and 7 days at 18 months. CSLT declined from 19 days at baseline, to 11 days at 6 months, 9 days at 12 months and 13 days at 18 months.

Findings on the ASI alcohol and drug scales measuring the past 30 days reflected different patterns. At CSLT, residents entered with low alcohol (mean=0.16, se=0.02) and drug (mean=0.08, se=0.01) severity. Because severity was low there was limited room to improve on these measures. Nevertheless, we found significant improvement at 6 months for both alcohol (mean=0.10, se=0.02) and drug (mean=0.05, se=0.01). Those improvements were maintained at 12 and 18 months. At ORS, residents entered with even lower alcohol (mean=0.07, se=0.02) and drug (mean=0.05, se=0.01) severity that was maintained at 6, 12 and 18 month follow up. Potential reasons for low alcohol and drug severity at baseline included large proportions spending some time in a controlled environment during the 30 days before they entered the houses. In addition, many residents had begun working on a recovery program shortly before they entered the houses (e.g., attending 12-step meetings). In fact, the ORS program typically required 30 days of abstinence before being eligible to enter the residence.

It was noteworthy that a wide variety of individuals in both programs had positive outcomes. There were no significant differences within either program on outcomes among demographic subgroups or different referral sources. In addition, it is important to note that residents were able to maintain improvements even after they left the SLHs. At 12 months 68% had left ORS and 82% had left CSLT. By 18 months nearly all had left, yet improvements were for the most part maintained.

Secondary Outcomes

There were also improvements noted on the secondary outcome measures. At CSTL these included improvements on employment, psychiatric symptoms, and arrests. The pattern was again significant improvement between baseline and 6 months that was generally maintained at 12 and 18 months. The percent arrested 6 months pre-baseline was 42%, which dropped to 26% at 6-month follow up and 22% at 12 months. There was a light increase at 18 months (28%), which was still significantly lower than pre-baseline. Employment severity on the ASI improved from a mean of 0.76(se=0.02) at baseline to a mean of 0.53(se=0.02) at six months. At 12 months the mean was 0.54(se=0.03), which increased only slightly at 18 months (mean=0.59, se=0.02). Psychiatric symptoms improved from a mean of 0.83(se=0.05) at baseline to 0.69(se=0.05) at 6 months. By 18 months there was a bit of an increase (mean=0.72, se=0.06), which was no longer statistically significant but was still a statistical trend (p<.10).

At ORS there were similar patterns of improvement on employment and arrests. From baseline to 6 months the average score on the ASI employment scale improved from 0.61 (se=0.02) to 0.51 (se= 0.03) and was maintained at 12 and 18 months. The odds of being arrested were reduced from baseline to 6 months by 80% and even further reduced at 12 and 18 months.

Factors that Predicted Outcome

In addition to documenting longitudinal outcomes, we were interested in assessing factors that predicted outcomes. Using GEE models that assessed a variety of factors across data collection time points we found involvement in 12-step groups to be the strongest predictor of our primary outcomes. For CSLT, 12-step involvement was associated with being abstinent for at least 6 months (p<.001), lower maximum days of substance us per month (p<.001, and fewer arrests (p<.01). For ORS, 12-step involvement was associated with abstinent for at least 6 months (p<.05), lower maximum days of substance us per month (p<.01), and lower ASI legal severity (p<.05).

We also examined how drinking and drug use in the participant's social network related to outcomes. At CSLT we found heavier drinking and drug use in the social network was related to worse outcome on all alcohol and drug outcome measures (p<.01 for all variables). At ORS the findings were mixed. There was a significant relationship between maximum number of days of substance use per month and drinking in the social network (p<.05) and drug use in the social network (p<.01). However, there were no significant relationships between social network variables and abstinence. In addition, for the ASI alcohol and drug scales at ORS, the only significant association with social network variables was heavier drug use in the social network predicting ASI alcohol outcome (p<.01).

In a recent analysis of CSTL residents we looked at psychiatric severity as a predictor of alcohol and drug outcome using growth curve models (Korcha et al (2010). We found that a subgroup of about a third of the residents had significantly higher psychiatric severity than other residents and had significantly worse outcomes. Our work on identifying and describing these residents with worse outcome is continuing.

Limitations

There are several limitations to the study that are important to consider. First, we could not directly compare which type of SLH was most effective because there were demographic and other individual characteristics that differed between the two types of houses. Second, individuals self selected themselves into the houses and a priori characteristics of these individuals may have at least in part accounted for the longitudinal improvements. Although self selection can be viewed as a weakness of the research designs, it can also be conceived as a strength, especially for studying residential recovery programs. Our study design had characteristics that DeLeon, Inciardi and Martin (1995) suggested were critical to studies of residential recovery programs. They argued that self selection of participants to the interventions being studies was an advantage because it mirrored the way individuals typically choose to enter treatment. Thus, self selection was integral to the intervention being studied and without self selection it was difficult to argue that a valid examination of the invention had been conducted. In their view, random assignment of participants to conditions was often appropriate for medication studies but often inappropriately applied when used to study residential services for recovery from addiction.

Significance of the Study

Our study represents the first examination of sober living house residents using a longitudinal design. To date, our papers have looked at study findings in terms of the types of improvements residents make and factors associated with outcome, the substance of which has been summarized above. One of our aims here, however, is also to look at significance from the perspective of how SLHs might impact various service systems in the community. The promising outcomes for SLH residents suggest that sober living houses

might play more substantive roles for persons: 1) completing residential treatment, 2) attending outpatient treatment, 3) seeking non-treatment alternatives for recovery, and 4) entering the community after criminal justice incarceration.

Treatment Systems

The two types of recovery houses assessed in this study showed different strengths and weaknesses and served different types of individuals. Communities and addiction treatment systems should therefore carefully assess the types of recovery housing that might be most helpful to their communities. Several considerations are reviewed below.

Outpatient programs in low income urban areas might find the Options Recovery Services model of SLHs helpful. Relative to the other housing programs, this model was inexpensive and the houses were conveniently located near the outpatient facility. Typically, residents entered these SLHs after establishing some period of sobriety while they resided in a nearby shelter and attended the outpatient program. A significant strength of the Options houses was that residents were able to maintain low alcohol and drug severity at 12-month follow up.

There are several significant advantages of establishing SLHs associated with outpatient treatment as apposed to traditional halfway houses. First, residents in SLHs are free to stay as long as they wish after completing the outpatient program as long as they abide by program rules. This eliminates arbitrary discharge dates determined by the program, a procedure often used by halfway houses to free up beds. Rather, the resident is able to decide when he or she is ready to transition to more independence. Among other things, this eliminates the need to move to questionable living environments that might not support recovery due to time limitations. SLHs are also less costly than halfway houses, which are usually funded by treatment programs.

SLHs combined with outpatient treatment may be especially valuable to resource poor communities that do not have funds to establish residential treatment programs or have the income levels that could support freestanding sober living houses which are more expensive. Most of the rent for the Options SLHs was paid by General Assistance or Social Security Income, so a variety of low income residents could be accommodated. While the level of support is less intensive (and less expensive) than that offered in residential treatment, it is more intensive than the relative autonomy found in freestanding SLHs. Some residents probably benefit from the mandate that they attend outpatient treatment during the day and comply with a curfew in the evening. For some individuals, the limited structure offered by freestanding SLHs could invite association with substance using friends and family and thus precipitate relapse. This could be particularly problematic in poor communities where residents have easy access to substances and people who use them.

Freestanding SLHs

The roles that freestanding SLHs can play in communities are different from SLHs that are associated with outpatient treatment. First, freestanding houses are often used by individuals who have some previous experience with residential treatment. While some of these individuals transition directly from the inpatient program to the SLH, others enter the houses after some post-treatment period in the community. They may slip, relapse or feel vulnerable to relapse, but for a variety of reasons not want to reenter a formal treatment program. Nevertheless, they may feel the need to take action and get support for reestablishing abstinence. Freestanding SLHs can be a good match for these individuals because they offer support for sobriety outside the context of formal treatment.

Freestanding SLH's offer a limited amount of structure and no formal treatment services. Thus, they are optimal for residents who are capable of handling a fair amount of autonomy and who can take personal responsibility for their recovery. Despite these limitations, CSLT appeared to benefit many different types of residents who were referred from an array of personal and institutional sources (i.e., self, family, criminal justice systems, and inpatient treatment programs). Expansion of freestanding SLHs in communities might therefore ease the burden on overwhelmed treatment systems. In communities that are unable to fund a sufficient number of treatment programs for individuals with substance use disorders, freestanding SLHs might be a clinically and economically effective alternative. The availability of treatment slots for individuals released from jail or prison or particularly lacking. For some those offenders who are motivated for abstinence and capable of handling some degree of autonomy SLHs might be a viable and effective option for recovery that is currently underutilized.

Criminal Justice Systems

Prison and jail overcrowding in the U.S. has reached a crisis point. Each year more than 7 million individuals are released from local jails into communities and over 600,000 are released on parole from prison (Freudenberg, Daniels, Crum, Perkins & Richie, 2005). Although the need for alcohol and drug treatment among this population is high, very few receive services during or after their incarceration. In California, studies show that few offenders being released from state prisons have adequate housing options and in urban areas such as San Francisco and Los Angeles up to a third become homeless (Petersilia, 2003). Housing instability has contributed to high reincarceration rates in California, with up to two-thirds of parolees are reincarcerated within three years. In a study of women offenders released from jails in New York City 71% indicated that lack of adequate housing was their primary concern.

Despite the enormous need for housing among the offender population, SLHs have been largely overlooked as a housing option for them (Polcin, 2006c). This is particularly concerning because our analysis of criminal justice offenders in SLHs showed alcohol and drug outcomes that were similar to residents who entered the houses voluntarily. However, as reviewed elsewhere (i.e., Polcin, 2006c), SLHs need to carefully target criminal justice involved individuals so that they select offenders that have sufficient motivation to remain abstinent and are able to meet their financial obligations.

Where do We go from Here?

There are multiple directions one could go in pursuit of additional research on SLHs. For example, studies comparing different living situations for individuals in early recovery could help highlight the relative strengths and weaknesses of SLHs. In addition, longer follow up time periods could be assessed as well as outcomes for a wider variety of subgroups. These might include minority groups, larger samples of women, and a variety of individual level characteristics not assessed here (e.g., self efficacy and interpersonal skills). However, we have opted to look at two topics that we think are of immediate relevance to communities: 1) documenting and improving outcomes for criminal justice referred residents and 2) understanding the community context within which SLHs operate.

Improving Outcomes for Criminal Justice Referred Residents

Findings from our study suggested that alcohol and drug outcomes for residents referred from the criminal justice system were equivalent to that of voluntary residents. However, offenders did not fare as well as others in two areas: finding and maintaining employment and avoiding arrests. In addition, the numbers of criminal justice referred residents was

relatively small and an examination of a larger sample of offenders is warranted. Among other things, the larger sample would enable us to identify predictors of outcome among offenders. The field would therefore be better equipped to identify those offenders who are more likely to do well in SLHs.

In addition to studying a larger number of offenders, we hope to explore an innovative intervention designed to improve outcomes for these residents in terms of employment, arrests, and other areas. Toward that end, we are in the process of developing a Motivational Interviewing Case Management (MICM) intervention designed to help offenders successfully transition into SLHs, avoid rearrest by complying with the terms of probation or parole, and succeed in activities that support successful transition into the community (e.g., employment). Our intervention modifies motivational interviewing to address the specific needs of the offender population (Polcin, 2006b). Specifically, it helps residents resolve their mixed feelings (i.e., ambivalence) about living in the SLH and engaging in other community based services. Thus, the intervention is a way to help them prepare for the challenges and recognize the potential benefits of new activities and experiences.

Assessing the Impact of the Community Context

The fact that residents in SLHs make improvement over time does not necessarily mean that SLHs will find acceptance in the community. In fact, one of the most frustrating issues for addiction researchers is the extent to which interventions that have been shown to be effective are not implemented in community programs. We suggest that efforts to translate research into treatment have not sufficiently appreciated how interventions are perceived and affected by various stakeholder groups (Polcin, 2006a). We therefore suggest that there is a need to pay attention to the community context where those interventions are delivered.

As a next step in our research on SLHs we plan to assess how they are viewed by various stakeholder groups in the community, including house managers, neighbors, treatment professionals, and local government officials. Interviews will elicit their knowledge about addiction, recovery, and community based recovery houses such as SLHs. Their perceptions of the strengths and weaknesses of SLHs in their communities should provide data that can be used to modify houses to improve acceptance and expand to serve more drug and alcohol dependent persons. We hypothesize that barriers to expansion of SLHs might vary by stakeholder groups. Different strategies may be needed for those who lack information about SLHs, have beliefs that they are not effective, have allegiances to other treatment approaches, have views that minimize social factors in recovery, and live in communities where public policy hinders expansion of SLHs. Drug and alcohol administrators and operators of houses might therefore need different strategies to address the concerns of different stakeholders.

Conclusion

Many individuals attempting to abstain from alcohol and drugs do not have access to appropriate housing that supports sustained recovery. Our study found positive longitudinal outcomes for 300 individuals living in two different types of SLHs, which suggests they might be an effective option for those in need of alcohol- and drug-free housing. Improvements were noted in alcohol and drug use, arrests, psychiatric symptoms and employment. Owners and operators of SLHs should pay attention to factors that predicted better alcohol and drug outcomes, including higher involvement in 12-step meetings, lower alcohol and drug use in the social network, and lower psychiatric severity. Although criminal justice referred residents had alcohol and drug use outcomes that were similar to other residents, they had a harder time finding and keeping work and had higher rearrest rates. Areas for further research include testing innovative interventions to improve criminal

justice outcomes, such as Motivational Interviewing Case Management (MICM) and examining the community context of SLHs. Recognizing stakeholder views that hinder and support SLHs will be essential if they are to expand to better meet the housing needs of persons suffering from alcohol and drug disorders.

Acknowledgments

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