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Empirical Research

On the role of values clarification and committed actions in enhancing the engagement of direct care workers with clients with severe developmental disorders

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ABSTRACT

The purpose of the present study was to evaluate the effects of values clarification and committed actions on the engagement of direct care staff with their clients with severe developmental disabilities. Participants participated in several workshops in which values exercises pertinent to their job and direct work with clients were completed and discussed. Committed actions were also established by each participant. Results from a multiple baseline across participants design showed that staff emitted 11–16 more instances of engagement with clients following the values workshops relative to their baseline levels. Implications of values clarification plus committed action workshops as a regular component of staff training for human services staff are discussed.

1. Introduction

The study of values has had an integral place in the analysis of human behavior. Values, defined as "freely chosen, verbally constructed consequences of ongoing, dynamic, evolving patterns of activity, which establish predominant reinforcers for that activity" (Wilson & DuFrene, 2009, p. 66) are important in many life domains, including family, career, and physical health. Values differ from goals in that goals may be accomplished, but values can not be achieved or completed; rather, values are ongoing and may stimulate the actions that a person takes to live a fulfilling life. One's achievement of a managerial position may be a goal, but leading others may be conceptualized as a value. Being able to identify one's values and take committed actions towards one's values is a component of the construct known as psychological flexibility. Those who are experiencing psychological flexibility are able to contact the present moment and act in accordance with their chosen values (Hayes, Strosahl, Bunting, Twohig, & Wilson, 2004).

Bond, Hayes, and Barnes-Holmes (2006) suggest that individuals who are not acting according to their chosen values are likely denying themselves contact with positive reinforcers that foster good mental health and effective performance at work and elsewhere. A number of studies have demonstrated a relationship between psychological well-being and values and committed action. For example, individuals with chronic pain who engaged in activities consistent with their stated values reported higher levels of physical and emotional functioning (McCracken & Yang, 2006), and changes in values and committed actions were shown to correlate with seizure reduction and enhanced quality of life in individuals with epilepsy (Lundgren, Dahl, Yardi, & Melin, 2008). Bahraini et al. (2013) found that those Veterans who were able to identify their values showed a lower likelihood of suicidal ideation than those who could not. These results suggest that while "thoughts about the past, emotions, bodily states and the like do not stimulate life-enhancing action," (Hayes, Strosahl, & Wilson, 2012, pp. 296–297) values clarification, which is an important component of Acceptance and Commitment Therapy (ACT), may help a person construct a sense of life direction (Hayes et al., 2012).

Having little contact with one's values as they relate to one's job would seem to have deleterious effects on an individual's satisfaction with their job, which in turn is likely to hinder their performance at work. Bond, Flaxman, van Veldhoven, and Biron (2010) for this reason suggest that focusing on psychological flexibility in the workplace may help reduce a number of common organizational problems, including attrition, absenteeism, and poor job performance. Importantly, an employee who engages in behaviors consistent with his or her values at work may also experience enhanced well-being. A number of studies have elucidated the utility of ACT interventions in the workplace in reducing stress, improving psychological well-being, and enhancing one's openness to adopt new practices (Biglan et al., 2013). Some research has targeted human service employees in particular, where

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stress and depression are reported to occur at higher rates than in other professions (e.g., Wieclaw, Agerbo, Mortensen, & Bonde, 2006). For example, Biglan, Layton, Jones, Hankins, and Rusby (2011) found that reports of depression, stress, and job burnout were reduced following ACT workshops in early childhood special educators. In addition, Varra, Hayes, Roget, and Fisher (2008) reported that drug and alcohol counselors who completed a six-hour ACT workshop were more willing to try new treatment procedures with clients relative to counselors who received training on company policies. Finally, ACT interventions were associated with decreased levels of stress and burnout and increased general mental health compared to a wait list control in social workers in Sweden (Brinkborgh, Michanek, Hesser, & Berglund, 2011).

Individuals employed as direct care workers with adults with severe developmental disabilities may be in a position to particularly benefit from values clarification and committed action work for several reasons. First, the levels of stress may be particularly high among individuals working in day treatment and residential programs with this population. Recent survey results suggest that up to one-third of front-line staff members experience stress levels indicative of the presence of a mental health problem (Hatton et al., 1999, as cited in Gray-Stanley, Heller, Hughes, Johnson, and Ramirez-Valles (2010)). Second, working with individuals with severe disabilities is often viewed as tedious, monotonous work, and one may find themselves frustrated by their clients' slow progress. A person in such a position may come to experience feelings of inadequacy and hopelessness (Bahraini et al., 2013). Other stressors inherent in the job include staff shortages and a lack of high quality training (Gray-Stanley et al., 2010). Third, if a direct-care worker's psychological well-being suffers, it is likely that their clients' well-being may suffer too. For example, it is well-documented that children of parents with depression or anxiety are likely to experience greater behavioral challenges themselves than other children (Meadows, McLanahan, & Brooks-Gunn, 2007). It is thus conceivable that a worker's own psychological flexibility may impact the livelihood of others. Considering that direct care staff are often the most important people in the lives of clients with severe developmental disabilities (Sharrard, 1992), addressing components of psychological flexibility in this segment of the workforce is in order.

Given the benefits of values and committed action interventions in other health-care settings, it would be valuable to determine the efficacy of this approach with direct-care staff working with individuals with severe developmental disabilities. This line of investigation was initiated by Bethay, Wilson, Schnetzer, Nassar, and Bordieri (2013), who demonstrated reductions in psychological distress from pre to posttest for intellectual disability staff following workshops in ACT and applied behavior analysis relative to that of a control group. Pre to posttest changes were most substantial for those participants who demonstrated higher levels of psychological distress at pretest. Participants in the ACT group also showed a decrease in the believability of burnout-related thoughts. In addition to enhancing the psychological well-being of staff, if staff perform differently in their jobs as a function of values and committed action training, such interventions would seem to have an obvious role in staff training and management in adult service settings. Many investigations of ACT in the work-place have examined change via standardized self-report measures. Conversely, Singh et al. (2015) implemented an intensive mindfulness curriculum with direct care staff who were working with individuals with low frequency, high intensity aggression. Following the intensive, five day program and a 32–37 week practice phase, the authors observed reductions in verbal redirections from staff, use of physical restraints, and client injuries to staff and peers.

Our goal in the present study was to establish a functional relationship between values and committed action trainings and direct care staff interactions with their clients using objective and reliable measures of behavior change. We focused on staff interactions with clients because prior research has suggested that individuals with severe developmental disabilities often show greater indicators of happiness and well-being when staff interact and socially engage with them (Parsons, Reid, Bentley, Inman, & Lattimore, 2012). We used a multiple baseline design across three direct care staff to explore the efficacy of values clarification and committed action exercises on the staff members' engagement with clients.

2. Method

2.1. Participants

Three direct care staff members at a day treatment program for adults with developmental disabilities participated in the study. Monica was a 71-year old female who had been working at the facility for 28 years. Jennifer was a 36-year old female who had been working at the facility for two years. Amanda was a 39-year old female who had been working at the facility for eight years. All three participants worked in three separate classrooms at the facility. (Although the facility served adults, the separate rooms were referred to as classrooms at the facility.) The classrooms all included clients with severe developmental disabilities, including intellectual disability and autism, some of whom were blind or elderly. The clients typically required assistance completing such tasks as feeding and toileting. Almost all of the clients were nonverbal, and a number were nonambulatory. Some of the clients displayed self-injurious or other challenging behaviors. Monica's classroom included 12 clients; Jennifer's classroom included 10 clients; and Amanda's classroom included 11 clients. The three staff were selected to participate because they had been observed to interact very infrequently with the clients in their classrooms by the authors and a supervisor.

2.2. Setting

Observation sessions were conducted for 15 min apiece in each classroom once a day, 2–3 times a week. Three graduate students in a Behavior Analysis and Therapy program took turns conducting the observations. The graduate students were all well-trained via didactic and experiential coursework in behavioral assessment and observation methods. The facility often hosted numerous visitors from various university courses, so both clients and staff were accustomed to having visitors in their classrooms. Workshops took place in a conference room equipped with a large table, six chairs, and a television display. Values sessions lasted 20–40 min in duration and were conducted once a day, two to three times per week. Workshop Series 1 included three workshop sessions, and Workshop Series 2 included three workshop sessions.

2.3. Materials

Materials used were inspired by ACT exercises published in Harris (2013) and Stoddard and Afari (2014). Materials included a laptop computer, pens and blank paper, poster board depicting a bulls' eye, and pages on which blank t shirts were printed. For the Modified Cycling Race metaphor, A 2 min YouTube video was shown that depicted a crowd of individuals participating in a race (https://www.youtube.com/watch? v=_x0f-Cqso04).

2.4. Procedures

2.4.1. Baseline

Baseline sessions consisted of observations in each participant's classroom. Baseline sessions were conducted for approximately 3–11 weeks for the three participants. Observers provided no feedback or interaction of any other sort with staff or clients during baseline observations.

2.4.2. Workshop Series 1

Workshop Series 1 consisted of three separate 20–40 min sessions, in which a total of three to four individuals participated. This included the particular participant and 2–3 additional direct care staff members employed at the facility who were not participating in the study. Workshop Series 1 concentrated on overall work-centered values. The first session included the Bull's Eye Exercise (Harris, 2013; Lundgren, Luoma, Dahl, Strosahl, & Melin, 2012) and utilized poster board representations of a bull's eye, one for each participant in the workshop. This values clarification exercise evaluated participants' values related to work and how closely the participants felt they were engaging in a life consistent with those values. The experimenter instructed participants to locate the center of the bull's eye and think of the center as living a life at work fully consistent with one's values. The experimenter explained that further and further away from the center of the bull's eye represented living a work life that was less in contact with one's values as the distance from the center increased. The experimenter reminded participants that values would be different for everyone in the room and that there was no right or wrong answer. To encourage discussion, the experimenter posed questions that included, for example, "Think what is important to you at work. What do you care about? What do you want to work towards?" In accordance with the exercise, participants generated a list of committed actions that would lead them closer to living a work life consistent with their work-related values.

At the beginning of the second session, participants discussed the committed actions they had established during the preceding session and how their work life might be different if they engaged in those committed actions. The experimenter discussed with participants whether they felt that a value- driven life would make their day work smoother or if they would feel satisfied or accomplished at the end of the day. Participants were then asked to think of someone they had met in their work who they believed was living a value-driven life. The participants discussed the characteristics of those individuals.

This session included a modified version of the Cycling Race metaphor (Vuille, 2013, as cited in Stoddard & Affari, 2014). Participants first watched a video of people participating in an Alzheimer's disease race, who wore common t shirts and waved banners. Participants then discussed their own involvement in similar races or other community events, and, in accordance with the exercise, related the t-shirt slogans and banners portrayed in the video to their own work-centered values. Participants discussed that when they have come together for similar community events in the past, they shared a common goal with others. The experimenter highlighted how they as staff members similarly work together as a larger team. The group discussed how staff often wear agency shirts depicting the name of the particular facility and noted how their values as agency staff were reflected in those shirts. The experimenter explained that each day they made the decision to put on their uniform and come to work according to their own personal values.

During the third session participants created paper t-shirts that reflected their work values and committed actions towards conducting their work life in a valued manner. They were instructed to "pick a work action that would lead your life in your chosen direction and draw it on the shirt. If others could read your shirt, what would they know about your work values? " The experimenter also discussed how each day the participants come into work, they wear their work uniform. They were asked to consider what that symbolizes in accordance with their work values. The experimenter asked them to think about what their uniform represents when they are in other community settings. Participants created t-shirts that ultimately demonstrated that they were carrying their values and walking with them through out the workday. Examples of slogans included "helpful and driven," "we're all in this together," "dedicated," and "loyalty."

2.4.3. Workshop Series 2

The values workshops were modified following the subtle improvements in engagement observed for Monica following her completion of Workshop Series 1. Workshop Series 2 was identical to the first set of workshops except that the exercises focused more specifically on what participants valued about their daily work and interactions with clients. Whereas the first workshop focused upon work values in general, Workshop Series 2 focused on what was important to participants in their work each day with clients and what committed actions could help move them closer to those values. During the Bull's Eye Exercise, participants were asked what interacting with their clients each day meant to them. With the bull's eye in front of them, they were further asked to consider what were the most important things to them when it came to the clients they worked with each day, what were they striving for in working with their clients? At the following session, participants further discussed why it was good for them, but also their clients, to be aware of their values. They considered how that perspective made a difference in their, as well as the clients', lives. When participants created paper t-shirts, the experimenter instructed them to design a t-shirt that their clients would be able to see. The experimenter asked the participants what kinds of pictures or words would be included on the t shirt, and what they would want their clients to know about what they valued about their work with them.

2.5. Variables, response measures, and interobserver agreement

The primary dependent variable was the frequency with which staff engaged with clients during a 15 min observation period before and after Workshop Series 1 and Workshop Series 2. Staff engagement was defined as a staff member initiating an interaction with clients that was *not* in response to a client's gestures or vocalizations but was rather spontaneous and unprompted. An engagement was scored if the interaction occurred within 2 ft. from the particular client and if the participant was physically oriented towards the client. An engagement could be vocal or gestural/physical in topography (i.e., talking to the client or handing the client a sensory object). Demands, reprimands, or comments from across the room were not scored as engagement. The experimenter was seated across the room and did not socially interact with participants or clients during the observation sessions; no feedback or instruction was provided to participants.

Interobserver agreement (IOA) was measured across all experimental phases. In order to evaluate interobserver agreement, two observers scored data independently. Interobserver agreement was calculated using the total agreement method for 35% of all observation sessions across all three participants. Agreement was calculated by dividing the instances of observer one, by instances of observer two, and multiplying that number by 100 to generate a percentage. Mean IOA for baseline across all participants was 93%, and mean IOA following the values sessions across all participants was 94%.

2.6. Social validity

Upon conclusion of the study participants were asked to complete a five-question social validity questionnaire presented in a Likert-type scale. The questionnaire was prepared specifically for this study. Table 1 shows the questions included in the questionnaire.

2.7. Design

A multiple baseline design across participants was used. As shown in Fig. 1, baseline was followed by Workshop Series 1, and Workshop Series 2 for all three participants..

Following multiple baseline design logic, the first participant began the first intervention phases (Workshop Series 1) when all three of the participants' baselines were judged to be stable via visual inspection. The second participant began the first intervention phase (Workshop

Table 1
Participants' responses to each question on the social validity questionnaire. Response options included Strongly agree, Agree, Neither agree nor disagree, Disagree, and Strongly disagree.

Question	Monica	Jennifer	Amanda
Did you enjoy this type of more workshop-style learning?	Agree	Agree	Strongly agree
Do you feel that you came into contact with your values after the workshops?	Agree	Neither agree nor disagree	Agree
Do you feel that you were able to apply what you learned in each workshop to your own classroom?	Agree	Agree	Agree
Do you feel that the given time for the workshops was appropriate?	Agree	Agree	Strongly agree
Would you recommend these workshops to other direct care staff?	Strongly agree	Agree	Agree

Series 1) once the first participant began to show an increasing trend in her engagement levels following the first intervention phase (Workshop Series 1), and so forth. The second intervention phase, Workshop Series 2, was implemented in order to determine if the values workshops would be more effective at enhancing staff interactions with clients if the workshops focused more specifically on the participants' work with clients, rather than just work in general. The implementation of this workshop series followed the same logic as that of the first workshop series.

3. Results

Fig. 2 shows the total number of instances of participants' engagement with clients during baseline and following Workshop Series 1 and 2..

3.1. Baseline

Monica initially displayed six instances of engagement, and, as the figure shows, her instances of engagement decreased to zero. Jennifer initially displayed three instances of engagement, but by sessions five and six, her frequency of engagement decreased to one per session and again increased to a stable baseline of three instances of engagement. Amanda initially displayed five instances of engagement, which decreased to only 1–2 per session for the remainder of baseline.

3.2. Workshop Series 1

Fig. 2 shows that Monica displayed an increase in frequency of engagement to two, six, and ultimately seven instances of engagement. Monica displayed an increase of engagement from a mean of 2.4 instances during baseline to a mean of 5.2 following Workshop Series 1. Jennifer's engagement increased to six instances. Her engagement increased from a mean of 2.2 during baseline to a mean of 6.2 instances of engagement following Workshop Series 1. Amanda displayed five instances of engagement, and, by session 19, 11 instances of engagement, and seven instances of engagement by session 20. Amanda displayed an increase of engagement from a mean of 4.8 during baseline to a mean of 7 following Workshop Series 1.

3.3. Workshop Series 2

Monica displayed an initial decrease of engagement to five instances, and, by session 15, showed an increase to 16 instances of engagement. Monica displayed an increase of engagement from a mean of 5.2 following Workshop Series 1, to a mean of 10 following

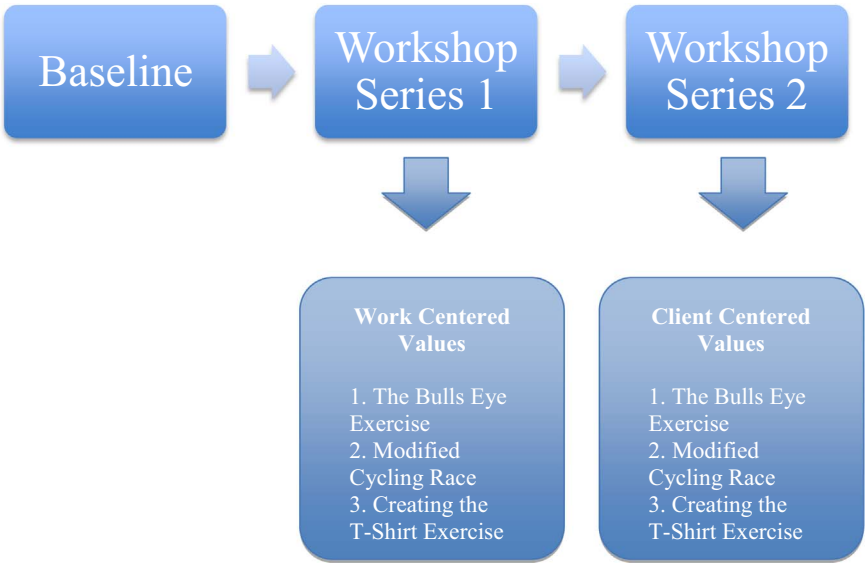

Fig. 1. Schematic illustration of the order of phases in this experiment.

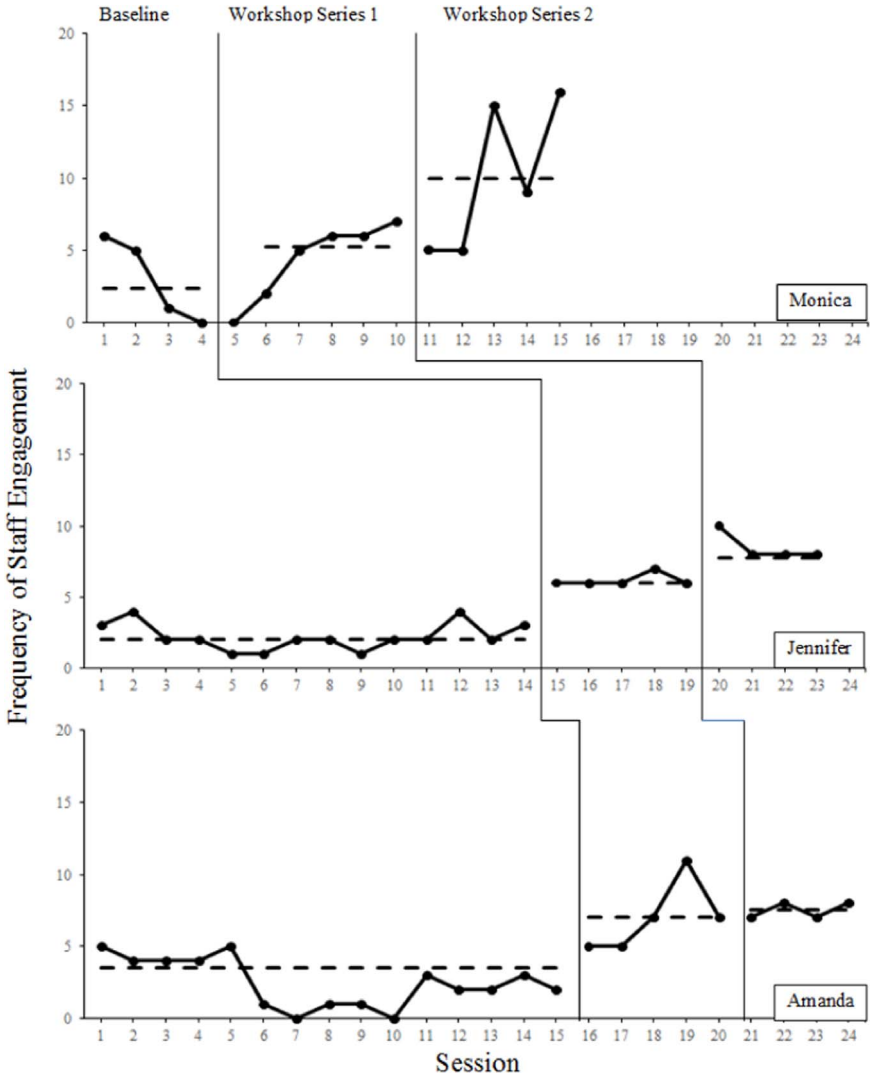

Fig. 2. Participants' frequency of engagement with clients during baseline and following Workshop Series 1 and 2.

Workshop Series 2. Monica's mean engagement thus increased from 2.4 instances during baseline to a mean of 10 instances of engagement following both Workshop Series. Jennifer displayed an initial increase of engagement to 10 instances, and by session 23 showed a stable trend of eight instances of engagement. Jennifer displayed an increase of engagement from a mean of 6.2 following Workshop Series 1 to a mean of 8.5 following Workshop Series 2. Jennifer's mean engagement increased from 2.2 instances during baseline to a mean of 8.5 instances following both workshops. Amanda displayed seven instances of engagement, and by session 24, displayed eight instances of engagement with individuals within her classroom. Following Workshop Series 2, Amanda's mean level of engagement increased to 7.5 instances. Amanda's mean engagement increased from a mean of 4.8 instances during baseline to a mean of 7.5 instances following both Workshop Series.

To summarize, following conclusion of the second workshop series, all participants showed an increase in the frequency of their engagement with clients from 11 to 16 instances of engagement relative to their baseline levels.

3.4. Social validity

Table 1 summarizes participants' responses to the social validity questionnaire. As the table shows, the participants all agreed or strongly agreed with the questions on the questionnaire, with the exception of Jennifer, who indicated that she neither agreed nor disagreed with the question, “Do you feel that you came into more contact with your values after the workshops?”

3.5. Anecdotal observations

During the workshops participants shared that they believed that they were making a difference in their community. Some participants reported that they thought of the clients and their co-workers as their second family, and believed that they were contributing to the clients' success. Activities such as paperwork and purchasing materials for the classrooms were reportedly perceived by staff as being important contributions to their work with clients.

4. Discussion

Our investigation was successful in establishing a functional relationship between values clarification and committed actions and staff engagement with clients with severe developmental disorders. Our results thus coincide with those reported by Varra et al. (2008), Brinkborgh et al. (2011), and Bethay et al. (2013), all of whom reported changes along a variety of measures in human service employees following ACT trainings. To our knowledge, ours is the first study to have isolated the effects of values and committed actions alone on the performance of direct care staff. Although Bethay et al. (2013)

demonstrated reductions in psychological distress from pre to posttest for intellectual disability staff following workshops in ACT and applied behavior analysis relative to that of a control group, our study is unique in its exclusive focus on values and committed actions. In addition, many ACT studies report behavioral changes using standardized self-report measures. Ours is further unique in that we recorded changes on observable and measurable staff behaviors. The first series of workshops focused upon general work-related values and resulted in modest improvements in staff engagement. The second series of workshops focused more specifically on the participants' values and committed actions with regards to their work with clients. The latter workshop series resulted in greater levels of staff engagement with clients following the trainings. Upon conclusion of the study, participants demonstrated 11–16 more instances of engagement with clients relative to their baseline levels. Due to significant impairments in motor and vocal abilities, individuals with severe developmental disabilities may have extremely limited opportunities for social interactions with others. For this reason, the clinical significance of our findings cannot be overlooked.

One possible explanation for our results is that the staff found interacting with their clients more reinforcing following the series of workshops, particularly the second series, which focused more specifically on their work with clients. Importantly, results from the social validity questionnaire revealed that two of the three participants agreed that the workshop put them in greater contact with their values. Bond et al. (2006) suggest that psychological flexibility may allow people to come into contact with reinforcers in the workplace that they did not contact previously. For individuals who have served as direct care staff for a number of years, workshops such as ours may serve as a reminder of what they initially valued and found reinforcing when they began their jobs. In addition, Graham, West, and Roemer (2015) contend that being in touch with one's values may help buffer the impact of negative experiences. Thus, the effects of negative experiences at work for direct care workers, such as encountering challenging behaviors, staff turnover, or cumbersome paperwork demands, may be mitigated for those staff who engage in committed actions consistent with their values. Finally, Bahraini et al. (2013) noted that those who are in touch with their values have a "reason for living." Given the number of hours that people spend in their jobs, failure to engage in actions consistent with their values while at work could easily lead to feelings of hopelessness and worthlessness in one's profession.

In addition to the changes in the participants' behavior towards clients, the experimenters learned a lot about the staff during the values workshops that would not have been known otherwise. For example, the participants noted that they believed that they were making a difference in their community, thought of the clients and their co-workers as their second family, and believed that they were helping the clients succeed. Trainings such as the ones conducted in this study may thus be a useful component of new staff orientations and in-services in day treatment and residential settings.

There are several limitations to our study worth noting: First, although improvements were seen in all of the participants' behaviors relative to their baseline levels, a greater number of observations following the second workshop series would have afforded more confidence in the effects of the independent variable. In fact, Biglan et al. (2011) note that the benefits of ACT may take some time before changes in behavior are fully realized: Although people may become psychologically flexible initially, the full benefits may only occur following the occurrence of challenging issues some time following the workshops (Biglan et al., 2011). Second, our study did not evaluate long-term changes in staff performance. Bond and Bunce (2000) evaluated the maintenance of intervention effects one year following the delivery of the workshops. Future research should ascertain the longevity of behavior change following values and committed action trainings, possibly examining the benefits of intermittent "refresher" trainings over the course of an individual's employment. Third, it is possible, although unlikely, that the presence of observers influenced participants' behavior following the workshops. Several observers were used throughout the study, and the classrooms at the agency hosted frequent visitors from a nearby university, so reactivity effects are unlikely.

This project inspired a number of ideas for future research. Given the notion that committed actions may buffer staff against some of the adverse aspects of their job, future research should include questionnaire measures of staff well-being before and after the values and committed action interventions. In addition, including staff willingness to adopt new agency procedures and techniques as a dependent variable in future studies would also be valuable (see Biglan, 2011). Finally, Singh and colleagues have demonstrated important changes in both staff and client behavior following mindfulness-based workshops: Singh et al. (2004) observed increases in objective, reliable measures of happiness in individuals with severe intellectual disabilities after frontline staff completed mindfulness training. Future research should document improvements in clients' behavior in addition to changes in staff behavior.

Biglan and Embry (2013) described functional contextualism as a values-driven science that possesses the tools for achieving cultural change. It is important to acknowledge that one small day treatment facility is a culture in and of itself, one that is ripe for the sort of "cultural change that contributes to improving the well-being of all people" that Biglan and Embry (2013, p. 2), describe. In his seminal paper *Compassion and Ethics in the Care of the Retardate,* Skinner (1972) expanded on the different reasons people may care for individuals with severe disabilities in our society, the most prominent reason being the provision of social contingencies for people to do so. If we adopt the framework delineated by Biglan and Embry (2013), contacting one's values and engaging in behaviors consistent with those values may be another important reason staff may care for the people with severe disabilities whom they serve.

Author notes

The work in this study has been performed in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki). All procedures were approved by the SIUC Human Subjects Committee and as such followed federal guidelines for obtaining informed consent. None of the authors of this study declare any conflicts of interest.

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