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ORIGINAL PAPER

Evaluation of a Program Model for Minimizing Restraint and Seclusion

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Abstract

This study conducted a longitudinal evaluation of an organizational change effort to minimize restraint and seclusion within a behavioral healthcare facility that serves at-risk and high-risk clients with intellectual, developmental, and psychiatric disabilities, using a context, input, process, and product model. The change effort was developed and implemented at an agency in the mid-Atlantic region of the USA that provided a continuum of care to children and adults in residential, educational, and home settings. There was a 99% decrease in restraint frequency, a 97% decrease in staff injury from a restraint, a 64% decrease in client-induced staff injury, and an increase in client goal mastery 133% from 2003 to 2016. Trauma-informed, less restrictive treatment methods provided safer treatment for individuals with a variety of disabilities, while increasing mastery of individualized goals. It also saved the organization over $16 million in lost time expenses, turnover costs, and workers' compensation policy costs.

Keywords Restraint minimization · Cost · Safety · Staff training

Introduction

Restraint and seclusion traditionally have been used to interrupt or contain harmful behavior or to decrease the frequency of behavior in the future (Jones and Timbers 2002; LeBel et al. 2012; Luiselli 2009). Restraint, by definition, limits mobility of parts of the body through the use of a manual method, a physical or mechanical device, material, or equipment (Mohr et al. 2010); and seclusion is defined as confinement when a patient is physically prevented from leaving a room where the person is alone without the presence of others (National Council for Behavioral Health 2006). According to the National Council for Behavioral Health (2006), restraint may be used when a person's imminent safety is at risk, even if aggression or self-destructive behaviors are not being displayed. Both restraint and seclusion are only to be used when all lesser restrictive options have been exhausted and proven to be ineffective in an effort to keep all involved safe. The intervention chosen needs to be the method that is considered to be the least restrictive (National Council for Behavioral Health 2006). Hence, researchers and practitioners have attempted to reduce restraint. For example, LeBel et al. (2012) reported that restraint and seclusion are used on children, adolescents, and youth in residential and educational settings and that these practices are traumatizing and dangerous to both the children and staff involved in each incident. In a study by Borckardt et al. (2011), a reduction of restraint and seclusion was achieved in an inpatient psychiatric hospital and Campbell et al. (2008) found a slight increase in the use of restraint when restraint training was provided to professionals.

Trauma-informed approach (TIA) is an approach designed for individuals around a thorough understanding of the profound neurological, biological, psychological, and social effects of trauma, coupled with an appreciation for the high prevalence of trauma experiences (Jennings 2004). TIA is a multilevel approach to treatment that begins with physical and emotional safety provided by an adult caregiver. With the presentation of a safe environment, children will be open to altering behavior, considering new ideas, and accepting help instead of worrying about their survival (Hodas 2006). The National Disability Rights Network (2009) report provided compelling reasons to justify a TIA approach to prevent potentially harmful outcomes. "By making restraint/seclusion reduction a priority, programs can provide more opportunities for children to learn, succeed, and continue on their paths toward resilience and a return to community life" (LeBel et al. 2010, p. 183). Although not every individual coming into care has been traumatized, aside from being in an out of home

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placement if placed residentially, the prevalence of trauma should be considered when providing services to these individuals.

Research has supported the effectiveness of TIA models in the treatment of individuals in behavioral health systems to reduce restraint and seclusion, and in many cases these models have been designed to address traumatic stress issues in individuals receiving services for mental health or substance abuse (Jennings 2004). There are deficits in the research for individuals with intellectual and developmental disabilities, as well as deficits in regard to outcome measures that report the cost-effectiveness of minimizing restraint and seclusion (Borckardt et al. 2011).

Sanders (2009) reported Grafton's initiative to reduce the use of restraint and seclusion and its effects on staff days lost and replacement costs as a result of work-related injuries. The comfort-verses-control mindset was consistent with the TIA model of treatment (Harris and Fallot (2001) that treats the individual in a way that minimizes the chance for everyday operations to traumatize or re-traumatize that client during service delivery. This philosophy taught response blocking, promoted an understanding of behavioral intent and client needs, and encouraged the development of creative solutions that were alternatives to restraint and seclusion. This culture shift asked employees to reassure clients, ask questions instead of making assumptions, be flexible, let go of the upper hand, and treat others with kindness and respect. The belief was that many situations in which a restraint or seclusion was used could be better resolved by a non-coercive, caring intervention from a person focused on peaceful conflict resolution who was willing and able to spend time with the upset or angry individual.

Within this model (Sanders 2009) which contained communication, training, support, and debriefing, information was gathered through employee feedback that to obtain a pulse for how employees felt about the change. The feedback was transformed into an action plan that maintained safety as a top priority. Training was initiated to share the motivation behind the initiative which based on the premise that force and control do not facilitate growth or rehabilitation for individuals who have experienced trauma (Kirkwood 2003). A written plan formalized the initiative which established accountability as to who was responsible for what, where, and when. It included defined target dates, such as specifying the flow of communication, and who was responsible for purchasing protective equipment, etc. Employees were also provided with additional training on an organizationally created blocking technique as safe alternatives to restraint or seclusion such as blocking technique involved the use of "pillows, cushions, bean bags and other soft objects to support a client in crisis and protect staff" (p. 217). The responsibility and expectation for innovative solutions, however, were placed on multidisciplinary teams who supported each individual and staff were empowered to consider and evaluate any alternative to restraint, both prior to and during the crisis situations.

The support component came with increased presence of administrative personnel when crisis situations occurred, whether they were in classrooms, residential, or community environments during scheduled or off-shift times, allowing for modeling and teaching opportunities through guidance and coaching. Finally, the last component was to debrief after each restraint or seclusion incident, to review the antecedents to avoid, and the supports needed to prevent future restraints or seclusions. Each incident was reviewed monthly with a team of executives to determine whether each use of restraint or seclusion was warranted or unwarranted. Data were collected through existing data collection systems including client, regional, and corporate data which were entered into a quality assurance database that was distributed across the programs monthly. As an update to the first initiative reported by Sanders (2009), Grafton Integrated Health Network (Unpublished) further defined its model of minimization of restraint and seclusion as a multi-component treatment package that provided strong leadership and the use of communication, training, measurement, debriefing, alternative solutions, and therapeutic treatment planning. The combination of these integrated parts as a transformational change model that can help to establish sustainable outcomes is the basis of this evaluation.

This paper describes an evaluation of the program that was conducted in accordance with the utility, feasibility, propriety, accuracy, and accountability standards provided by the Joint Committee on Standards for Educational Evaluation (2011). The leadership component of the model recognized that clear expectations, communication, support, and persistence are necessary to create a vision that sets a tone for future success. The communication component was defined as "a two-way process in which there is an exchange and progression of thoughts, feeling or ideas towards a mutually accepted goal" (Grafton Integrated Health Network (Unpublished)), and involved providing a clear vision and passion for the initiative, identifying different vehicles to communicate the message, modeling practices, and sharing results and progress routinely. Training included communicating new performance expectations and teaching the knowledge and skills needed to practically implement a philosophy of comfort-verses-control, minimizing the use of restraint and seclusion, and keeping both clients and employees safe. Measurement was the collection of data that are clearly defined to evaluate whether progress was being made to guide subsequent steps in the improvement process. Debriefing was a goal-oriented communication and learning process that focused on exploring how to avoid future use of restraint or seclusion. Alternative solutions were responsive and proactive strategies that reflected the comfort-versus-control philosophy. Therapeutic treatment planning involved creating a team that assessed the client's strengths,

needs, abilities, and preferences to develop strength-based strategies that promoted personal growth and provided the individual with safety and security.

Method

Participants

In the original study, Sanders (2009) reported results from a region of Grafton which included children (average census of 75 between the ages of 6 and 22) and adults (average census of 43 at ages 22 and older) with "varying levels of autism and/or intellectual disabilities along with concurrent psychiatric conditions and significant behavioral challenges" (p. 216). This represented outcomes for one of Grafton's regional operations. The current program evaluation addressed all of Grafton's organizational operations which had more than 750 employees and served 3244 clients in 2016. The clients included 165 in psychiatric residential treatment, 444 in community-based group homes, 99 in education, 1725 in outpatient services, 594 in early intervention services, and 217 through the applied behavior analysis program. The children were males and females aged 6–22 years old with varied levels of intellectual and developmental disabilities. When the change initiative began, all clients had the potential to be exposed to restraint of seclusion when they presented as a risk to themselves or others. In the year before this program began (2003), there were 6646 incidents of restraint and seclusion.

The first author interviewed six participants to obtain information about Grafton's model. These included two executive officers and four employees with over 130 total years of experience as Grafton employees. Among these participants, there was a varied sample of experiences, gender, and educational level. All were with Grafton throughout the entire implementation of the restraint and seclusion initiative in direct support and administrative service positions.

Procedures

This evaluation looked at the context, input, process, and product of the model in order to appraise longitudinal outcomes related to restraint and seclusion rates, staff injury from restraint, client-induced staff injuries, lost time, and modified duty for staff, financial implications, and client goal mastery since implementation of the model. Findings focused on developments that have occurred since the initial implementation and that have expanded through the last report. The evaluation utilized Stufflebeam and Shinkfield (2007) Context, Input, Process, Product (CIPP) evaluation model with a data validation design to analyze extant documents, quantitative data, and qualitative data from interviews. Initial interviews focusing on the context, input, process, and product of the organizational change effort were held with the executive team, which then led to a second phase of interviews that included identified members of the Grafton team who were involved in the implementation and maintenance of the change.

The first phase of interviews was conducted by one of the authors and included two of Grafton's executive officers involved in the creation and implementation of the Grafton. Interviews were held in an enclosed private office where there was limited opportunity for participants' voices to be heard. Each interview took approximately 2 h. The executives were interviewed separately by the same interviewer and all answers to the structured interview questions were recorded by hand by the interviewer on an interview form before the answers were summarized and reviewed by the interviewer with the interview participant for accuracy. The interviewees for the second phase of interviews were informed by information provided in the first phase, but the structure of the interview process was consistent with the initial phase of interviews.

Additionally, quantitative data were collected from an organizational benefits and results summary provided by the risk management department, restraint and seclusion summaries from the quality assurance department, and client goal mastery data from the chief operations officer over 2003–2016. These data were summarized and presented in graphs and tables to analyze trends over time and outcomes.

Measures

The CIPP program evaluation model was used to guide, strengthen, ensure accountability, publish effectiveness, and rule out ineffectiveness in various disciplines and areas of service (Stufflebeam 2007). Interview questions followed the CIPP evaluation model infused with criteria from TIA, the six core strategies for reducing seclusion and restraint (National Association of State Mental Health Program Directors 2006), and Kotter's (1995) eight-step change model. The instruments used included interviews, document reviews, and secondary data analysis. The *2016 Benefits and Results Summary* (Grafton Integrated Health Network (Unpublished)) and annual restraint and seclusion summaries from the quality assurance department were the data sources reviewed to obtain restraint frequency, client-induced injuries, staff injuries from restraints, lost time and modified duty, lost time expense, annual workers' compensation costs, cost of employee turnover, and total return on investment data. Grafton's quality assurance department compiled serious incident reports with restraint and seclusion incidents and client goal mastery percentage as an average of client goal attainment compared to the number of client goals closed throughout the fiscal year. The risk management department compiled information from workers' compensation claims and recorded client-induced injuries, staff injuries from restraints, lost time and modified

duty, lost time expense, annual workers' compensation costs, and cost of employee turnover. These data were used to analyze cumulative annual frequencies and totals from 2003 to 2003 through 2016. Organizational totals included data from both group homes and community settings in which Grafton was located and included other organizational components, such as maintenance or corporate employees.

Results

Table 1 summarizes data on frequency of restraint and seclusion by organizational components between 2003 and 2016. There was a 99% decrease in the number of restraints from 2003 through 2016 and, extending beyond Sanders (2009), there was a 91% decrease in restraint frequency from 2008 to 2016 including a 97% decrease of restraint in community-based programs and a 90% decrease in restraint in residential treatment centers. Grafton acquired another residential treatment facility during January 2011and 184 restraints (54% of the total) in 2012 and 84 restraints (21% of the total) in 2013 from that new facility affected that number. Community-based programs have showed that a similar increase in restraint use, from 14 in 2011 to 58 in 2013.

Seclusion fell from 253 in 2003 to 0 in 2015 and 2016 for a 100% reduction. Seclusion frequencies were variable because community-based programs have not engaged in seclusion during 2003–2016, but the practice had been utilized intermittently in residential treatment facilities. In 2006, seclusion was eliminated, but it returned in 2007. Between 2012 and 2013, Grafton acquired another residential treatment facility and there were 135 seclusions (68% of the total) in 2012 and 109 seclusions (29% of the total) in 2013 from the new facility. In 2015, the practice of seclusion was again eliminated and has remained eliminated.

Table 2 shows data on staff injuries from restraint which dropped by 97% (110 to 3) from 2004 to 2016 and by 82% (17 to 3) from 2008 to 2016. Since 2004, community-based programs have experienced a 100% decrease in the amount of staff injuries (63 to 0), and residential treatment facilities have experienced a 93% decrease in the amount of staff injuries (43 to 3) related to restraint and seclusion. Since 2008, community-based programs have kept the amount of staff injuries related to restraint stable at 0, and residential treatment facilities have experienced an 81% decrease in the number of staff injuries related to restraint (16 to 3).

Table 3 summarizes data on client-induced staff injuries. The number of client-induced injuries to staff decreased by 64% since 2004 and 41% since 2008. Since 2004, community-based programs have experienced an 88% decrease in the number of client-induced injuries (220 to 73), and residential treatment facilities have experienced a 60% decrease (111 to 44). Since 2008, community-based programs have experienced a 53% decrease in the number of client-induced injuries (154 to 73) and residential treatment facilities have experienced a 33% decrease in number of client-induced injuries (66 to 44).

Table 4 summarizes the data on number of lost and modified days. Grafton had an 81% decrease in the total number of lost time in days from client-induced injuries or staff injuries

Table 1 Restraint and seclusion frequency, 2003–2016, and percentage change

Year	Organizational restraint	Community-based restraint	Residential treatment facility restraint	Residential treatment facility seclusion
2003	6646	2788	3858	253
2004	3819	2361	1458	1015
2005	3465	1871	1594	984
2006	2015	586	1429	0
2007	396	125	271	339
2008	623	97	526	361
2009	438	55	383	204
2010	136	48	88	41
2011	121	14	107	50
2012	361	22	339	198
2013	458	58	400	371
2014	238	61	177	95
2015	154	25	129	0
2016	53	3	50	0
Overall change	− 99%	− 100%	− 99%	− 100%
Change since 2008	− 91%	− 97%	− 90%	− 100%

Table 2 Frequency of staff injury from a restraint, 2004–2016, and percentage change

Year	Organizational staff injury	Community-based staff injury	Residential treatment facility staff injury
2004	110	63	43
2005	126	64	57
2006	86	19	65
2007	32	4	28
2008	17	1	16
2009	17	1	16
2010	3	1	2
2011	9	0	9
2012	18	2	16
2013	9	1	8
2014	5	2	3
2015	7	0	7
2016	3	0	3
Overall change	− 97%	− 100%	− 93%
Change since 2008	− 82%	− 100%	− 81%

from restraint or seclusion since 2004 (1750 to 335) and a 38% overall decrease since 2008 (544 to 335). Since 2004, community-based programs have experienced an 84% decrease in the number of lost days (1221 to 196), and residential treatment facilities have experienced a 72% decrease in number of lost days (477 to 132). Since 2008, community-based programs have experienced a 172% increase in the number of lost days (72 to 196), and residential treatment facilities have experienced a 72% decrease in number of lost days (472 to 132). Since 2004, the organization has utilized modified days as a means to get staff back to work in an expedited manner to avoid an increase in lost time. Grafton saw a 267% increase in the number of modified days used from 2004 to 2016 (254 to 932 days) and an 18% increase since 2008 (788 to 932). Since 2004, community-based programs have experienced a 165% increase in the number of modified days (202 to 536), and residential treatment facilities have experienced a 590% increase in the number of modified days (48 to 331). Since

Table 3 Frequency of client-induced injury to staff, 2004–2016, and percentage change

Year	Organizational staff injury	Community-based staff injury	Residential treatment facility staff injury
2004	360	220	111
2005	424	256	128
2006	400	210	163
2007	292	171	121
2008	220	154	66
2009	205	143	62
2010	163	129	33
2011	145	97	48
2012	173	113	60
2013	179	115	63
2014	138	96	40
2015	169	87	75
2016	129	73	44
Overall change	− 64%	− 88%	− 60%
Change since 2008	− 41%	− 53%	− 33%

Table 4 Number of lost and modified days, 2004–2016, and percentage change

Year	Lost days			Modified days		
	Organization	Community-based	Residential treatment facility	Organization	Community-based	Residential treatment facility
2004	1750	1221	477	254	202	48
2005	1139	245	658	962	364	549
2006	627	149	417	2576	1160	1279
2007	373	176	197	1799	828	971
2008	544	72	472	788	380	408
2009	338	137	201	1224	969	255
2010	471	449	19	1328	1163	146
2011	391	219	172	842	512	330
2012	164	58	106	861	507	354
2013	475	237	238	1533	751	782
2014	633	523	100	909	661	198
2015	362	118	244	888	405	483
2016	335	196	132	932	536	331
Overall change	− 81%	− 84%	− 72%	+ 267%	+ 165%	+ 590%
Change since 2008	− 38%	+ 172%	− 72%	+ 18%	+ 41%	− 19%

2008, community-based programs have experienced a 41% increase in the number of modified days (380 to 536), and residential treatment facilities have experienced a 19% decrease in number of modified days (408 to 331).

Figure 1 shows that Grafton reported lost time expenses decreased 75% from $473,340 to $120,339 over the years from 2004 to 2016 and decreased 28% from 2008 to 2016 ($166,420 to $120,339). Figure 2 shows that since 2004, community-based programs have experienced a 79% savings in lost time expenses ($330,256 to $70,407), and residential treatment facilities have experienced a 63% savings in lost time expenses ($129,019 to $47,417). Figure 3 shows that Grafton reported a 27% decrease in the cumulative monetary impact of the intervention on the organization's annual workers' compensation policy cost over the years from 2004 to 2015 ($1,600,000 to $1,173,409). Figure 4 shows that in 2007, the cost of turnover was $2,170,000. The cost-of-turnover formula included the cost to hire (recruiter salary, ads, background checks), training (trainer materials, time in training, coverage), and lost quality and efficiency while a position is vacant. Cost-saving assumptions included one third the annual salary plus benefits for a 2080-h employee. With that as a baseline value, there was a $642,693 savings in 2008, a savings of $890,517 in 2009, $1,484,674 in 2010, savings of $989,184 in 2011, savings of $573,937 in 2012, a savings of $545,491 in 2013, a savings of $594,787 in 2014, a savings of $359,548 in 2015, and a savings of $519,838 in 2016. From 2007 to 2016, the years that these savings were calculated, the

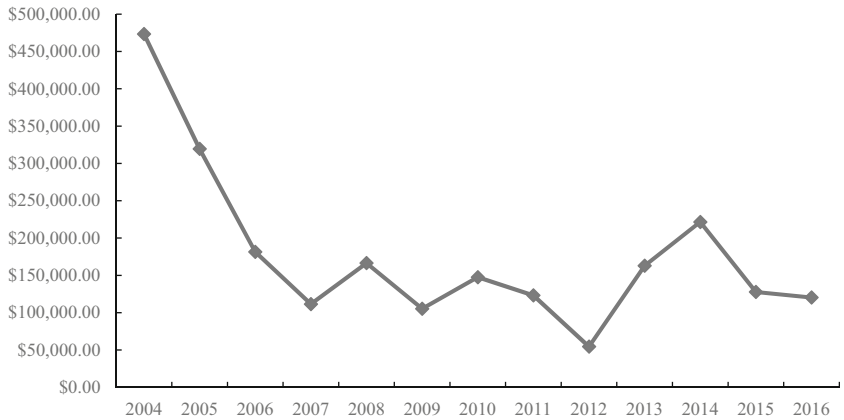

Fig. 1 Organizational lost time expenses, 2004–2016

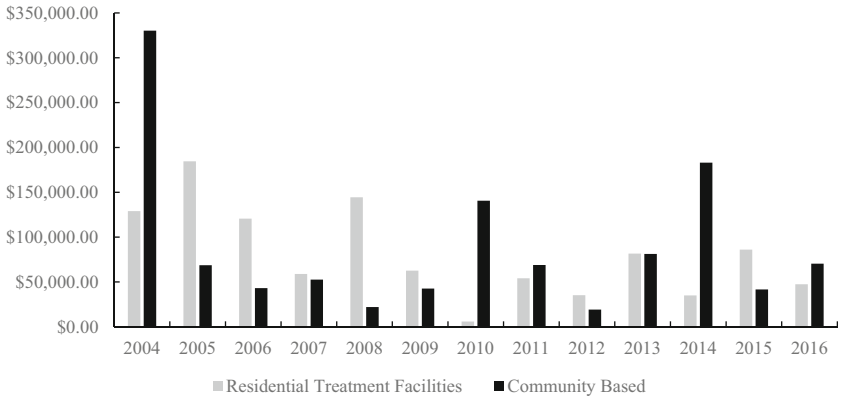

Fig. 2 Lost time expenses, 2004–2016, community-based settings, and residential treatment facilities

total cost savings associated with employee turnover was approximately $6,600,000. Overall, Grafton has saved nearly $16,420,661, which is based on $5,981,571 in workers' compensation policy cost savings, $3,838,420 in lost time savings, and $6,600,670 in turnover savings.

Along with increased safety, decreased restrictive practices, and positive financial benefits, Grafton was also able to impact client outcomes. Figure 5 shows that in 2005 the client goal mastery rate was at 34%. Along with the initiative to decrease restrictive practices, an initiative was undertaken to improve teaching and outcomes. In 2008, the goal mastery rate improved to 66%, and in 2016, 80% of all goals completed at Grafton were mastered. Overall, this was a 133% increase in outcomes for those served by the agency.

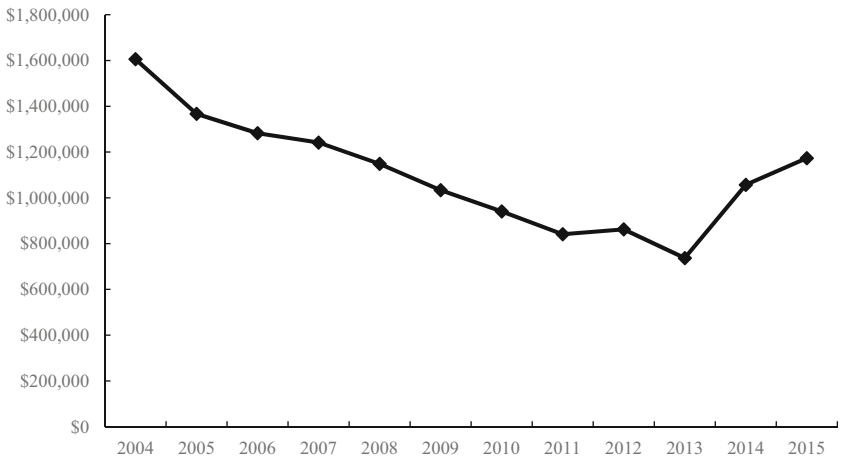

Fig. 3 Workers' compensation policy cost, 2004–2015

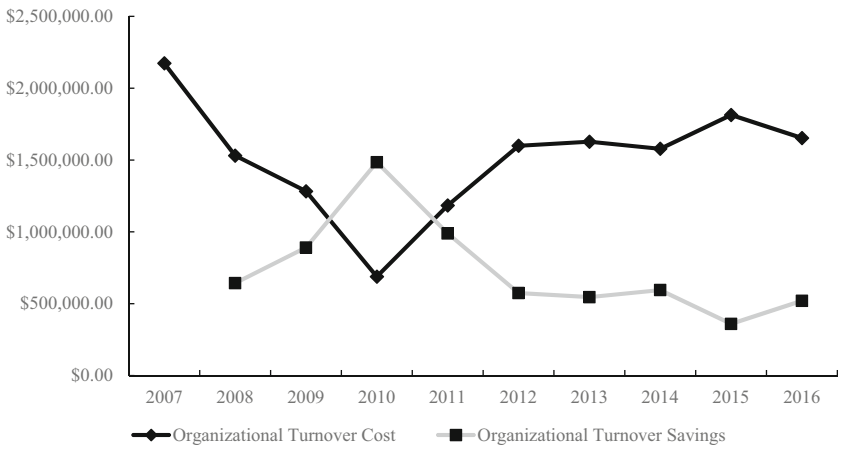

Fig. 4 Costs associated with employee turnover, 2006–2016

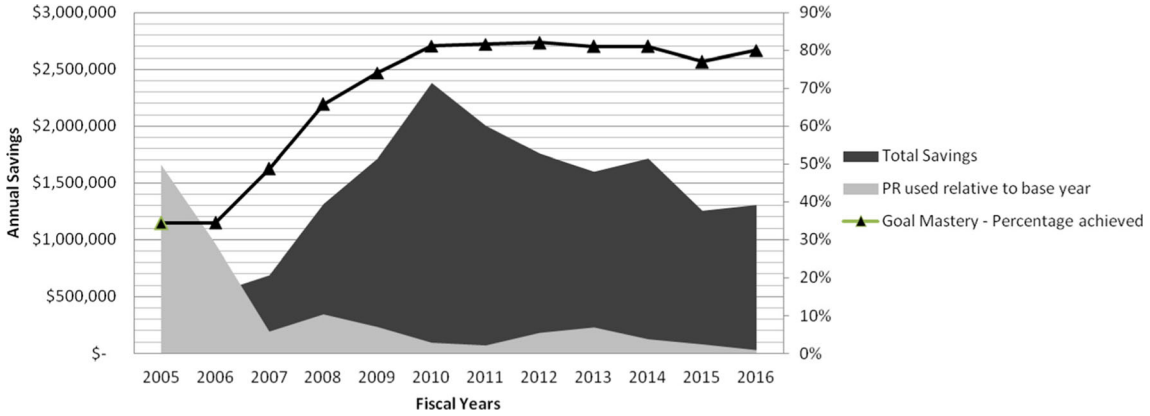

Fig. 5 Physical restraint compared to total organizational savings and goal mastery achievement by fiscal year

Discussion

According to interviews, the behavior modification and management training that was in place prior to the initiative focused on the use of restraint and seclusion, and these tactics reportedly happened frequently as a means of control. Restraint, including prone restraint, and seclusion were used quickly for challenging behavior, resulting in workers' compensation concerns, injuries, and serious incidents. The comfort-versus-control philosophy taught response blocking, promoted an understanding of behavioral intent and client needs, and encouraged the development of creative solutions that were alternatives to restraint and seclusion. This culture shift asked employees to reassure clients, ask questions instead of making assumptions, be flexible, let go of the upper hand, and treat others with kindness and respect. The belief was that many situations in which a restraint or seclusion was used could be better resolved by a non-coercive, caring intervention from a person focused on peaceful conflict resolution who was willing and able to spend time with the upset or angry individual. The focus was on the individual, and alternative solutions were developed through multidisciplinary teams as thinking evolved. Blocking has evolved into a new, patent pending, crisis-response method, Ukeru.

This evaluation has shown that this program had long-term effects, and the impact of treating clients in an innovative way and still achieving results should bring change into the conversations of other organizations. If this model of reducing restraint and seclusion had resulted in more staff or client-induced injuries, or if there had been increased costs to the organization, then the impact might not have been as powerful. With the positive outcomes that were found, taking on a trauma-informed mindset and treating clients in a novel way may encourage similar organizations to question the need for restraint and seclusion. This model of intervention should be considered. Organizations need to learn to be more responsible and accountable (Brown 2000), especially when it comes to the treatment to vulnerable individuals.

Implementing a cultural change and innovative solution that focused on reducing restraint and seclusion with embracement of a TIA mindset may have contributed to these results. Organizational leaders who do not recognize effective alternatives to restraint and seclusion may not be open to discussing other approaches. Continued empirical studies that show similar results will strengthen the momentum in a movement to reduce or eliminate restraint and seclusion. This support will build a case for treatment that promotes comfort-verses-control. Impact, effectiveness, sustainability, and transportability are to be found in the Grafton Integrated Health Network (Unpublished) model for minimization of restraint and seclusion.

The change process helped Grafton leadership manage organizational behaviors through a clearly defined intervention that has been fine tuned up to and beyond the initial results provided by Sanders (2009). The ability to change a culture with so many unknowns and with the potential for dangerous outcomes shows that this method of change can work in extreme situations. A focus on leadership, communication, training, measurement, debriefing, alternative solutions, and therapeutic treatment planning led to better individual care but also led to a decade of data.

Authors' Contributions KLS designed and executed the 2009 study, coordinated the revision of the organizational change model, and assisted with writing the paper and the collection and analysis of the quantitative data. JHC designed and executed a 2015 study, participated in the revision of the organizational change model, performed the interviews for the program evaluation, and assisted with writing the paper and the collection and analysis of the quantitative data.

Compliance with Ethical Standards

Conflict of Interest The authors Jason H. Craig and Kimberly L. Sanders have affiliations with and are involved with the organization mentioned (Grafton). There is a non-financial interest in the subject matter or materials discussed in this manuscript, and the authors are employed by the organization. The initial program evaluation was submitted by Jason H. Craig to the Abraham S. Fischler School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova Southeastern University, and Grafton's Chief Executive Officer has provided informed consent for this publication.

Human and Animal Rights This article does not contain any studies with human participants or animals performed by any of the authors.

Ethical Approval The authors, in accordance with the policy of their service institutional review board, obtained approval for the research.

Informed Consent Informed consent was obtained from all individual participants included in the study.

References

Borckardt, J. J., Madan, A., Grubaugh, A. L., Danielson, C. K., Pelic, C. G., Hardesty, S. J., & Frueh, B. C. (2011). Systematic investigation of initiatives to reduce seclusion and restraint in a state psychiatric hospital. *Psychiatric Services, 62*, 477–483.

Brown, M. T. (2000). *Working ethics: strategies for decision making and organizational responsibility.* Oakland: Regent Press.

Campbell, M. M., Weiss, S., Froman, P., Cheney, P., Gadomski, D., Alexander-Shook, M., & Ernst, A. (2008). Impact of a restraint training module on paramedic students' likelihood to use restraint techniques. *Prehospital Emergency Care, 12*, 388–392.

Harris, M., & Fallot, R. (2001). *Using trauma theory to design service systems*. San Francisco: Jossey-Bass.

Hodas, G. R. (2006). *Responding to childhood trauma: the promise and practice of trauma informed care*. Harrisburg: Pennsylvania Office of Mental Health and Substance Abuse Services.

Jennings, A. (2004). *Models for developing trauma-informed behavioral health systems and trauma-specific services*. Alexandria: National Association of State Mental Health Program Directors, National Technical Assistance Center for State Mental Health Planning.

Joint Committee on Standards for Educational Evaluation. (2011). *Program evaluation standards statements.* Retrieved from http://www.jcsee.org/program-evaluation-standards-statements.

Jones, R. L., & Timbers, G. D. (2002). An analysis of the restraint event and its behavioral effects on clients and staff. *Reclaiming Children and Youth, 11*, 37–41.

Kirkwood, S. (2003). Practicing restraint. *Children's Voice, 12*(5), 14–15.

Kotter, J. (1995). Leading change: why transformation efforts fail. *Harvard Business Review, 73*, 55–67.

LeBel, J., Huckshorn, K. A., & Caldwell, B. (2010). Restraint use in residential programs: why are best practices ignored? *Child Welfare, 89*, 169–187.

LeBel, J., Nunno, M. A., Mohr, W. K., & O'Halloran, R. (2012). Restraint and seclusion use in U.S. school settings: recommendations from allied treatment disciplines. *American Journal of Orthopsychiatry, 82*, 75–86. https://doi.org/10.1111/j.1939-0025.2011.01134.x.

Luiselli, J. K. (2009). Physical restraint of people with intellectual disability: a review of implementation reduction and elimination procedures. *Journal of Applied Research in Intellectual Disabilities, 22*, 126–134.

Mohr, W. K., LeBel, J., O'Halloran, R., & Preustch, C. (2010). Tied up and isolated in the schoolhouse. *Journal of School Nursing, 26*, 91–101.

National Association of State Mental Health Program Directors. (2006). *Six core strategies for reducing seclusion and restraint use*. Retrieved from http://www.nasmhpd.org/docs/NCTIC/Consolidated_Six_Core_Strategies_Document.pdf.

National Council for Behavioral Health. (2006). *Public policy: restraint and seclusion rules chart.* Retrieved from http://www.thenationalcouncil.org/cs/public_policy/restraints_seclusion_rules_chart#footnotes.

National Disability Rights Network. (2009). *School is not supposed to hurt: investigative report on abusive restraint and seclusion in schools.* Retrieved from http://www.ndrn.org/sr/SR-Report.pdf.

Sanders, K. (2009). The effects of an action plan, staff training, management support and monitoring on restraint use and costs of work-related injuries. *Journal of Applied Research in Intellectual Disabilities, 22*, 216–220.

Stufflebeam, D. L. (2007). CIPP evaluation model checklist (2nd ed.). Retrieved from the Western Michigan University website: http://www.wmich.edu/evalctr/archive_checklists/cippchecklist_mar07.pdf.

Stufflebeam, D. L., & Shinkfield, A. J. (2007). *Evaluation theory, models, and applications*. San Francisco: Jossey-Bass.