

REPORT / PEER OUTCOMES PILOT: AUSTIN STATE HOSPITAL 2016-2017 AUGUST 31, 2017

Outcomes of mental health peer support services in an inpatient setting

Submitted to Texas Health and Human Services Commission (HHSC)



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Plain English Summary

In Fiscal Year 2015, the Texas Department of State Health Services (DSHS; now Texas Health and Human Services Commission [HHSC]) contracted with researchers at the University of Texas at Austin Texas Institute for Excellence in Mental Health (TIEMH) to conduct a pilot study of the recovery outcomes of people receiving peer-provided mental health services. The Peer Outcomes Pilot (POP) study focused its investigation on two Texas mental health provider organizations, a state hospital and a Local Mental Health Authority (LMHA), in the Austin area. Preplanning phone calls were conducted to determine their interest in participating and to clarify details of the peer services they provide. An invitation to participate in this study was extended to Austin State Hospital (ASH). Another iteration of this study was conducted at an LMHA, Bluebonnet Trails Community Services (BTCS). This report focuses on research processes and results from the state hospital site, ASH. For more information about research processes and findings at the LMHA site, BTCS, see Kuhn, Chubinsky, Stevens-Manser, and Peterson (2017).

This study examined the impact of peer-provided services on the recovery outcomes of people receiving mental health services in a state hospital. It also documented the process by which TIEMH researchers and Peer support providers (PSPs) at the site collaborated to conduct the study. PSPs at the site of this study worked with TIEMH researchers to implement the study, including study planning and data collection. PSPs administered a self-report survey and analyzed existing case documents of 60 people receiving services at the hospital during the study time-frame. The survey was created in collaboration between PSPs and researchers to assess two domains identified by PSPs as integral to recovery-oriented care. Additional measures examined included previous hospitalizations, restraints, PRN medications, and service engagement. This report describes the results of implementation of PSP services at the site, in terms of service engagement and service outcomes. It describes the process by which TIEMH researchers and PSPs collaborated to complete the study

Introduction

Recovery is "a process of change through which individuals improve their health and wellness, live a self-directed life and strive to reach their full potential" (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015). The Surgeon General's Report on Mental Health (U.S. Department of Health and Human Services [HHS], 1999) and the President's New Freedom Commission on Mental Health (2003) named recovery as the organizing principle for the transformation of mental health services and the expected outcome of mental health services.

Peer support specialists are people in recovery who are employed to share their experiences, in order to promote the recovery of others affected by mental illness. Little research exists to support the provision of peer support services to persons receiving mental health services. However, one preliminary meta-analysis suggests that peer support services may influence certain recovery outcomes including: reduced inpatient service use, improved relationship with providers, better engagement with care, higher levels of empowerment, higher levels of patient activation, and higher levels of hopefulness for recovery (Chinman et al., 2014).

Recent studies suggest that peer support may influence these outcomes via activities including assisting in the creation of recovery plans, providing group peer support (Chinman et al., 2015), assisting with Wellness Recovery Action Planning (WRAP) (Jonikas et al., 2013), providing one-to-one peer support (Mahlke et al., 2017; Rogers, et

al., 2016), providing independent living skills training (Salzer et al., 2016), and acting as advocate/liaison between the individual and clinical providers (Goetter et al., 2017).

Collaborators in the research process

Involving people with lived experience in research to ensure that experiential knowledge informs the fundamental structure of investigations into the field of mental health recovery (e.g., study design, survey design, data collection processes and techniques, interpreting findings), is rooted in empiricism: The tenet that knowledge comes primarily from sensory experience, and that research hypotheses must be tested against these direct observations rather than relying on reasoning or intuition (Cozby, 2009).

Moderate evidence supports the effectiveness of employing service recipients to conduct mental health research. Specifically, it has been found that their involvement results in more valid and reliable instruments and findings Oades, Law, & Marshall, 2011), improved accessibility of research documents (Nilsen, Myrhaug, Johansen, Oliver, & Oxman, 2013), and more relevant research priorities (Ghisoni et al., 2017; see also Hancock et al., 2012; Linhorst & Eckert, 2002; Rogers, Chamberlin, Ellison, & Crean, 1997; Staley, Kabir, & Szmukler, 2013). Collaboration between researchers and people with lived experience may result in a variety of additional benefits, including: improving consent procedures and enhancing recruitment rates (Ali et al., 2006; Staley, 2009), eliciting more candid interview responses (Williamson et al., 2010), modifying researcher misinterpretation in analyses (Savage et al., 2006), highlighting findings most relevant to service users (Ross et al., 2005), questioning interpretation and modifying how findings are reported (Faulkner, 2006; Rose, 2004), enhancing power and credibility of findings during dissemination (Smith et al., 2008), facilitating wider and more accessible dissemination (Barnard et al., 2005; McLaughlin, 2006), empowerment and strengthening of the voice of people in recovery (Beresford, 2002; Macaulay et al., 1999), increased knowledge, skills, and confidence of people in recovery (Rhodes et al., 2002), and deepening researchers' understanding of the issues people in recovery face (Hewlett et al., 2006; Lindenmeyer et al., 2007).

Rationale and Purpose

This study serves to address the need to test and improve the evidence-base for the effectiveness of peer-provided services on the recovery outcomes of people receiving mental health services. Further, based on the existing literature, the authors of this report recognized the need for additional research to include people in recovery throughout the research process.

The research question addressed by this study was: Does peer support positively impact recovery outcomes during a person's stay at Austin State Hospital (ASH)?

In order to address this question of whether peer support services impact recovery outcomes during an inpatient stay at a state hospital, the researchers worked with ASH to systematically capture peer service provision and appropriate recovery outcome measures. Because of the lack of previous research indicating the most appropriate recovery-oriented outcome measures in an inpatient setting, as well as the formative nature of peer service documentation processes at ASH, analyses of study outcomes were both exploratory and confirmatory.

In addition to addressing the research question, this report also provides recommendations for future studies and describes the process of collaborating with PSPs in the research process of this study.

Methods

The University of Texas at Austin Institutional Review Board (IRB) and the Department of State Health Services (DSHS; now Texas Health and Human Services Commission [HHSC]) IRB #2 determined this study was exempt from IRB oversight. All members of the research team had training in Human Subjects Research and the handling of sensitive information.

Study Planning

In Fiscal Year 2015, a pre-study planning meeting was conducted with program staff from DSHS, Via Hope (the certifying body of Certified Peer Specialists in Texas), and the Texas Council of Community Centers Director of Recovery Based Services. Representatives of these organizations are subject matter experts on documentation and billing of peer support services. The purpose of the meeting was to discuss barriers, identified by TIEMH researchers, to collecting peer services data (for the POP study). Specifically, these included barriers related to accuracy, completeness, and coding of peer services by Local Mental Health Authorities (LMHAs). This meeting also served to address issues affecting peer services billing by LMHAs, including inconsistencies in documentation.

During the pre-study meeting, it was established that DSHS was unable to address data coding problems for the foreseeable future. Thus, it was determined that it would be best to work with LMHAs and State Hospitals, independently, to conduct outcome studies. To do so, researchers at TIEMH would need to identify organizations with well-established peer programs that bill and code for peer services provided.

Prior to data collection, eight planning meetings were conducted (January - September 2016) with researchers, Peer support provider (PSP) collaborators, and ASH and DSHS program staff in order to finalize details of the study design (see Appendix A for a timeline of study activities). Additionally, communication and meetings were ongoing between researchers and ASH staff over the course of the project, after data collection began, to ensure that data collection targets were met and that any questions or concerns that arose from collaborators and stakeholders were addressed in a timely manner.

Research Collaborators

PSPs collaborated with TIEMH researchers to implement the study. These staff were full- and part-time employees and contractors at ASH. PSPs had the support of their supervisors to collaborate in this study. PSPs participated in the following aspects of the research process: collaborated with researchers on study design and planning, including sample selection criteria, data collection, and procedures to protect confidentiality; collaborated on survey development, testing, and feedback. PSPs were trained by researchers in survey administration and were paid for survey administration and other data collection.

Setting

Adult Psychiatric Services (APS) units at the state hospital were selected during the planning phase as the setting for data collection by both researchers and PSP collaborators. The APS program consists of civil (8 units) and forensic (1 unit) admissions. At the beginning of the data collection period, the census for all APS units was 165.

This 'snapshot' of people being served on the units indicated that length of stay ranged from 1 to 1,554 days (*Mdn* = 57). Age ranged from 19 to 66 years (*Mdn* = 37). Most were 'Male' (72%). Most were 'White' (65%) and Non-Hispanic (78%).

Peer Support Services at ASH

On average, 20% of the 1,500 +/- yearly admissions to ASH have a peer support interaction. This means that approximately 25 people admitted each month receive peer support services during their stay at ASH. Peer support services at Austin State Hospital include both individual and group services and are provided in a variety of settings throughout the hospital. People are referred to peer services through different channels within the hospital. Services are always voluntary, in keeping with the peer value of supporting self-determination. See Table 1 for a description of all peer support service offerings at ASH.

Across all six types of peer support services, supports and interaction are conducted in accordance with the **ASH Peer Support Shared Values**: Authenticity, mutuality, transparency, kindness, advocacy, following through (closing the cycle), non-judgment, modelling recovery / offering hope, supporting self-determination, team minded, and respectful.

Table 1: Description of Peer Support Services Offerings at Austin State Hospital

Service	Description	Purpose	Location	Referral Process
General Peer Support (one on one)	Create relationship and connect through mutual lived experience to support person to maximize voice through the principals of self-determination and relationship before task.	For the person to feel empowered and heard. That they engage more authentically.	In the service area.	Anyone can self- refer or be referred by staff. It is always voluntary to engage.
Peer Support Group	A peer group is a discussion that can either be open or centered on a specific topic or activity. The group is mindful of being mutual, authentic, transparent, and non-judgmental.	To promote community, and to provide support.	In the service area.	People are referred to groups by staff through email, phone, or self- referred by word of mouth on the unit.
Meditation Group	The group includes both the practice of various types of meditation and discussion. The groups are one hour, and take place twice a week per service area.	The purpose of the group is to provide a space for establishing and expanding meditation practice. The purpose is to promote mutuality and individuals are encouraged to facilitate and/or co-facilitate.	The Peer Support Lounge.	People are referred by staff, and self- referred by word of mouth on the unit.
Recovery Team Meeting	Prepare/accompany/support person to participate in a formal multidisciplinary meeting about treatment/recovery.	Help the person engage and be heard in process. The ideal is that they are driving treatment and peers assist them.	On unit and in meeting room.	Word of mouth/clinical referral, it's the person's choice to engage. Peer Support Services are always voluntary.
Survivor's Group	A support group for survivors of trauma, focused on connection and healing.	To offer a safe space for survivors to connect and share.	On APS West and APS East.	Group is open to everyone, although other staff are welcome to refer people to group.
Events	Various events have included: poetry slams, open mic, art exhibits, and performances.	To encourage creative endeavors and to showcase talent of all kinds. Also building community.	Throughout the hospital.	Open to anyone who expresses interest.

Design

The study design was cross-sectional. Researchers collected self-report survey data, administered by PSPs, and analyzed existing case documents. The design was composed of descriptive and quasi-experimental methods. Randomization to peer services (the "treatment" group) was not possible, given the Texas Certified Peer Specialist Code of Ethics (Via Hope, 2013). In lieu of randomization, data was collected from two pre-existing groups: those who received peer services and those who did not. The sampling technique employed (see Procedures) attempted to balance the sizes of the two groups. Both confirmatory and exploratory outcomes were assessed.

Measures

A survey (see Appendix B) was developed for the purpose of the study to measure organizational and personal recovery orientation. Additional measures under study included select variables from data systems used by ASH, including date of admission and discharge, demographic information, diagnosis, previous hospitalizations, services received data, precautions, restraints, injuries inflicted on another person, and *pro re nata* (PRN) psychiatric medications ordered.

Survey

The survey was developed in collaboration between researchers and PSPs at ASH through a series of meetings with peer providers. In the first meeting, peers identified constructs they believed should be 1) present in recovery-oriented care interactions and 2) promoted by peer providers in individual recovery. These included empathy, engagement, rapport/alliance/relationship, empowerment, self-direction, non-judgment, hope, and talents (strengths). Researchers first developed a bank of items from existing validated instruments that represented the intended outcomes of both peer services and recovery-oriented services (Herth, 1992; Oades, et al., 2011; Poulin & Young, 1997; Rogers, Chamberlin, Ellison & Crean, 1997; Schrank, et al., 2012; Institute of Behavioral Research: Texas Christian University, 2005). The item bank was shared with the PSPs and an iterative process of review and revision was used to develop a final list. A meeting was then held to finalize the number of survey items and the item language. Researchers and PSPs shared the goal of creating a brief (i.e., about 10-15 items in length) instrument, which would have greater utility than a longer instrument (i.e., 30+ items) in a clinical setting and encourage greater response rates. The drafted survey was then pilot tested with individuals receiving services at both study sites. Feedback from this pilot testing of the instrument was used to make final changes to the instrument before it was administered to participants. The final version consisted of 16 items representing two domains: 1) Perception of recovery-oriented services received and 2) Perception of individual recovery status.

Demographic Information and Outcomes

Administrative data was collected from ASH's electronic records systems, including: Social Work Assessments, Progress Notes, and other reports extracted from ASH's electronic records systems. Variables extracted included:

- **Demographic information** Age in years, race, ethnicity, and gender
- Previous hospitalizations- The number of previous admissions to ASH, not including the current admission
- Date of admission and discharge (length of stay) Of the current admission

- Service engagement (services received) Total services received indicating service engagement included
 peer services, educational rehabilitation services and classes, dietician services, psychology services,
 psychosocial rehabilitation services, and social work services. The total services received count excluded
 nursing notes, physician notes, and psychiatrist notes because they were captured too inconsistently in
 the progress notes to determine if there was engagement.
- **Restraints ordered** Restraints are episodes in which people are physically restrained by a staff member (vertically or horizontally) or restrained mechanically (i.e., by a chair) for a specified length of time.
- **PRN psychiatric medications ordered** PRN psychiatric medications are medications not intended to treat a person's primary diagnosis. They are ordered to be given when necessary, as requested. PRN medications are sometimes referred to as 'stat orders,' to indicate the urgency of their use. PRN medications may be either oral or injectable.

Additional measures not used in analysis due to limited documented data included:

- **Precautions** include orders given for patients to be placed under continuous visual observation by either one (1:1) or two (2:1) staff members for a specified length of time.
- **Injuries inflicted on another person** was operationalized as the number of incidents of injury inflicted upon another person by the individual.

Procedures

After the survey was finalized, researchers conducted a brief training in survey administration for 11 PSPs working at ASH. The training also provided an opportunity for PSP collaborators to ask questions and address concerns related to the specifics of administration and the study purpose in general. PSPs at ASH worked together to identify a study liaison who would maintain records of survey administration and communicate with the research team over the course of the study.

Data from surveys and case review were collected by PSPs during the course of participants' hospitalization. Dates of stay varied within the data collection time period from September 2016 to March 2017.

Two groups were surveyed, one that received peer support services at the time of the survey (peer services group) and another that did not (no peer services group). The PSPs administering surveys used a sampling technique which consisted of extracting a report of people currently admitted whose admission date fell within the required survey sampling time frame (5 to 14 days post-admission), and inviting individuals from those lists to complete the voluntary survey. This technique also required that each PSP administer surveys to the selected sample in a unit within which they did not typically work, in order to minimize any bias that might be introduced to survey responses because of a pre-existing relationship.

Participants

Inclusion criteria for participation included age (18 and older), language spoken (English), currently receiving services on the APS units, and admission 5 to 14 days prior survey administration. Participants who had not yet discharged from services at the conclusion of data collection (n = 9) were excluded from analysis.

Analysis

Case review included case notes, written as narratives. A graduate research assistant reviewed the narratives and extracted the aforementioned measures. Two members of the research team performed quality reviews to ensure coding accuracy.

All data was analyzed using SPSS version 24. Analysis of descriptive statistics, t-test of between groups differences and Multiple Analysis of Covariance (MANCOVA) were conducted to test the specified research question.

Results

Demographics

Participant age ranged from 20 to 60 years old (M = 37, SD = 12). Most participants were white (66.7%), non-Hispanic (25.0%) and male (72.5%) (see Table 2). Ethnicity was only reported for 12 individuals.

The number of previous admissions to ASH ranged from 0 to 21 (M = 3.6, SD = 3.87, Mdn = 2). Approximately half of participants (46.9%) were currently admitted for court-ordered competency restoration. Participants represented eight different APS units.

Table 2. Participant demographics

Race	N	%
Asian	1	2.0
Black or African American	16	31.4
White	34	66.7
Ethnicity	N	%
Hispanic	9	75.0
Non-Hispanic	3	25.0
Sex	N	%
Female	14	27.5
Male	37	72.5
Hispanic Non-Hispanic Sex Female	9 3 N 14	75.0 25.0 % 27.5

Recovery orientation

The survey consisted of two domains: Perception of recovery-oriented services received and individual recovery status. See Table 3 for scores in both survey domains. Missing item scores were imputed using the participants' domain means in 11 cases.

An independent samples t-test was conducted to determine whether the group that received peer support services differed significantly on either of the two domains on the survey. All assumptions of the t-test were met, including homogeneity of variances. Patients who received peer services did have higher average individual recovery status scores (M = 4.4, SD = .62) than those who did not receive peer support services (M = 4.1, SD = .58). However, this difference was not statistically significant: t(df) = 1.51(47), p = 0.14. Additionally, patients that received peer support services perceived that the organization had a higher recovery orientation (M = 3.8, SD = 1.85).

1.03) than those who did not receive peer support services (M = 3.5, SD = .91), though this difference was slightly smaller. This difference was also not statistically significant: t (df) = 0.91 (47), p = 0.37.

Table 3. Survey domain averages.

Survey domain	Peer services M (SD)	No peer services M (SD)
Recovery-oriented services (8 items)	3.8 (1.03)	3.5 (.91)
Individual recovery (8 items)	4.4 (.62)	4.1 (.58)

Outcomes

Differences in outcomes variables (previous ASH hospitalizations, length of stay, service engagement, restraints, and PRN medications) were analyzed using t-tests (see Table 4).

Table 4. Differences between groups for outcome variables.

	Group			
	Peer services	No peer services	t	df
Previous ASH hospitalizations	3.2 (4.25)	.8 (1.36)	3.11*	49
Length of stay (days)	87.3 (49.97)	40.4 (31.51)	3.16*	49
Service engagement	40.3 (23.74)	16.3 (20.45)	3.25*	48
Restraints (days)	1.2 (2.25)	.3 (.86)	1.36	49
PRN medications (days)	6.7 (8.85)	1.2 (1.59)	3.67*	49

Note: * indicates that the p value was statistically significant.

Previous hospitalization at ASH

The number of previous hospitalizations received at ASH ranged from 0 to 21 (M = 2.6; SD = 3.87). One outlier (z > 3) was detected in the peer service group. The group that received peer support services had a higher number of previous admissions on average (M = 3.2, SD = 4.25) than the group that did not receive peer support services (M

= .8, SD = 1.36). An independent samples t-test indicated that the difference was statistically significant, t (df) = 3.11 (49); p < .001.

Length of Stay

Length of stay for the sample ranged from 5 to 293 days (M = 75.3, SD = 50.12). One outlier (z > 3) was detected in the peer services group. Length of stay was longer for the peer services group (M = 87.3, SD = 49.97) than the group that did not receive peer services (M = 40.4, SD = 31.51). An independent samples t-test indicated that the difference was statistically significant, t (df) = 3.16 (49); p < .001.

Service Engagement

The *total services received* count excluded nursing notes, physician notes, and psychiatrist notes because they were captured too inconsistently in the progress notes to determine if there was engagement. Total services received ranged from 1 to 93 (M = 34.1, SD = 25.10). The peer service group engaged in more than twice as many services (M = 40.3, SD = 23.74) than the group that did not receive peer support services (M = 16.3, SD = 20.45). An independent samples t-test indicated that the difference was statistically significant, t (df) = 3.25 (48); p < .001.

Restraints

The total number of days on which individuals received orders for restraint ranged from 0 to 10 (M = 1.0, SD = 2.02). The peer services group had a greater number of days on which restraint orders were received (M = 1.2, SD = 2.25) than the group that did not receive peer support services (M = 0.3, SD = .86). An independent samples t-test indicated that the difference was not statistically significant, t (df) = 1.36 (49); p = .18.

PRN Medications

PRN medication orders were recorded for 40 (78.4%) individuals during their stay at ASH. Two outliers (z > 3) were detected in the group that received peer services. The total number of days on which orders were given for PRN medications ranged from 0 to 37 (M = 5.3, SD = 8.03). The peer services group had a greater number of days on which PRN medications were ordered (M = 6.7, SD = 8.85) than the group that did not receive peer support services (M = 1.2; SD = 1.59). An independent samples t-test indicated that this difference was statistically significant, t (df) = 3.67 (49); p < .001.

Controlling for Length of Stay

A multivariate analysis of covariance (MANCOVA) was conducted to determine whether the differences in two outcome variables, service engagement and total days PRN orders were given, between the two groups were significant when controlling for length of stay. Restraints, precautions, and injuries were not included in the model due to limited documented data. The model was not a fit to the data as there was a not a statistically significant difference between the peer services group and the group not receiving peer services on the number of PRN order days or service engagement, after controlling for length of stay, F(2, 46) = 1.56, p = .221, Wilks' $\Lambda = .937$.

Peer Support Services

For the group that received peer support services, the types of peer support services received is listed in Table 5. The most common type of peer support service received was one-on-one General Peer Support (see Table 1 for a description). No Meditation Group or Survivor's Group services were received by participants in this study.

Table	5. Peei	servi	ces	received	by type for	peer	service grou	ıр
_	_			_				

Peer Support Service Type	%	N
General Peer Support	94.7	36
Peer Support Group	68.4	26
Events	7.9	3
Recovery Team Meeting	5.3	2
Meditation Group	0.0	0
Survivor's Group	0.0	0
Total	100	38

Discussion

People receiving peer support services appear to be more engaged in services than those not receiving peer support services, however this difference becomes less than statistically significant when controlling for length of stay. Further, because people self-select into peer services, causality cannot be inferred. The principle of self-determination underlies all peer support activities at ASH, so randomization was not deemed to be appropriate. Thus, there may be other pre-existing differences between the two groups that account for any differences in outcomes. The lack of statistical significance when controlling for length of stay may have resulted from the small sample size.

People receiving peer support services received more PRN medication orders, which may indicate greater acuity. However, this difference also becomes less than statistically significant when controlling for length of stay. This is further complicated by the potential impact of overrepresentation in the group of people receiving peer services (75%) as well as the small sample size overall, and the size of the group not receiving peer services (n = 13).

Length of stay presented as a covariate, rather than an outcome as originally hypothesized. It may have been related to other variables that confound the reception or refusal of peer support services (e.g., competency restoration/forensic commitment). It is also confounded with other outcome variables, including services received, and may contribute to the statistically significant *t*-tests between groups for PRN orders.

Although the overall model was not statistically significant, these data indicate increased use of services, longer length of stay, greater number of restraint days, greater number of PRN orders, and more previous hospitalizations at ASH for people receiving peer services. These findings seem to suggest that PSPs were working with people who had higher acuity levels. Further study with a larger sample size is needed to determine this.

Limitations

Current Study

The current study was cross-sectional; it examined service use for a period of approximately 6 months (or less). A longitudinal study that follows individual outcomes over an extended period of time would be needed to make future studies more robust. Additionally, the small sample size may result in a diminished ability to detect statistically significant differences between groups when controlling for length of stay. A longer data collection period would increase sample size.

The brief nature of the inpatient stay limited both exposure to peer services and availability of outcome measures. Approximately half of the ASH sample was hospitalized on forensic commitment, or competency restoration. This confounded voluntary service engagement, survey responses, and other outcomes, given the involuntary nature of the hospitalization. This may have affected outcomes; for example some people may have preferred to remain at ASH, where the environment is less restrictive than prison, rather than return to incarceration or to stand trial.

In any survey that relies on self-report, response biases, including acquiescence, social desirability, and demand characteristics, may confound results. These might have affected participants' responses to survey items related to the recovery orientation of services received and their reported perception of individual recovery. Specifically, responses may have been biased if participants believed that their release or discharge dates would be affected by their responses, or if they believed their responses would be used by researchers or hospital staff to determine if the participant was "competent" or "well" enough to stand trial.

People receiving peer support services were overrepresented in this study. The original estimate of the proportion of individuals admitted to ASH who received peer support services was approximately 20%. However, in the current sample this rate was nearer to 75%. Disproportionate response rates to the survey administered by a PSP may have resulted from either 1) people receiving peer services being more comfortable or familiar with PSPs, or 2) from an increasing number of individuals actually receiving peer support services and that being reflected in the rates for each group.

PSPs noted that some people appeared to be unable to complete surveys in the 5 to 14 days post-admission time frame due to the effects of hospital-administered psychiatric medications. This could affect either responses given to survey items completed or response rates generally.

Missing data and inconsistent reporting in the case documents, including the social work assessments and progress notes, may have contributed to diminished accuracy in measuring engagement. It is worth noting that PSPs began documenting services in ASH progress notes specifically for the purpose of this study. Of all note types, peer support notes were the most consistent and clear in terms of service counts, description of skills/rehabilitative services rendered, and readability.

The broader organizational context at ASH, including leadership and structural changes immediately preceding and during the data collection period, may have influenced the complex interactions between populations served, services rendered, and orders given by providers.

Limitations of involving peer support providers in research activities

Some of the PSPs at ASH were working as state employees, which precluded them from being paid for work in this study and resulted in fewer available PSP collaborators. Survey administration was reported to be burdensome in addition to regular job duties.

Other limitations or challenges to PSPs collaborating in the research process included environmental and time constraints (e.g., administering surveys on a busy unit or research duties being onerous) and conflict between the "research" role and the "peer" role. See a detailed discussion of challenges and limitations in the Peers in Research (PIR) 2017 study report (Kuhn, Lodge, & Stevens Manser, 2017).

Recommendations

Results of the current study provided sufficient insight to make recommendations for future research on two areas: peer support service outcomes and involving peers in research.

Recommendations for peer support service outcomes studies

- Eliminating reliance on survey data/respondents would increase accessibility to a larger sample size as data would all be extracted from existing records.
- Obtaining an IRB determination earlier on in the process, before design details are fully formed, in order
 to obtain sample data during planning phases of research, would allow preliminary investigation of what
 data 'looks like' and would allow more specific, data-driven data collection and analysis planning.
- Studies should consider focusing efforts on the collection and analysis of quantitatively described data to eliminate inconsistencies found in narrative data.

Recommendations for studies involving PIR in research

The following recommendations are made, to improve collaborations between researchers and people with lived experience:

- The task of collaborating in the research process should not necessarily be made available to anyone who would be willing, but rather a few, key collaborators should be identified on the front-end to increase investment and clarify roles and expectations. This would also allow for more consistent, formal check-ins, technical assistance, and follow through over the course of the study.
- The possibility of initiating closed-end contracts with collaborators should be explored, so that the scope of work to be contributed is detailed on the front-end, increasing commitment to the study and allowing more accurate planning (e.g., for sample size) in the design phase.

For additional recommendations, see the PIR study report (Kuhn et al., 2017).

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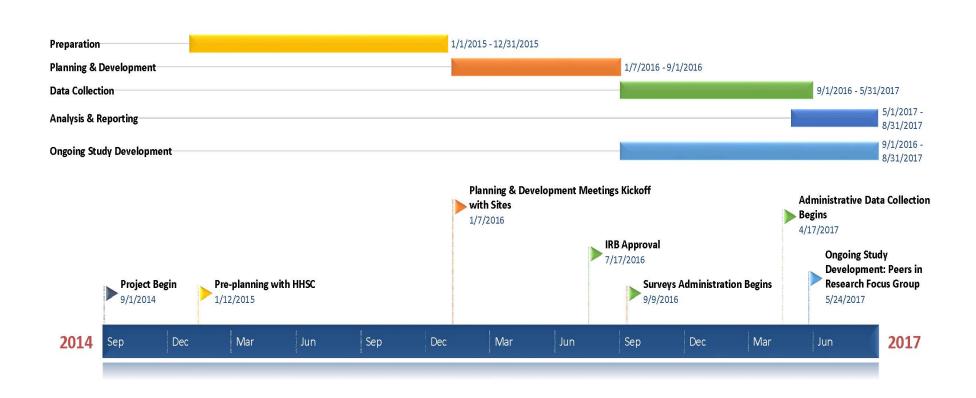
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Appendix A: Timeline of Study Activities

Peer Outcomes Pilot Study Timeline of Activities FY 2015 – FY 2017



Appendix B: Survey Items

				Survey #:	
Recovery Services Survey				Date:	
We would like to know about your time spent at Aus treated you, how you see yourself, and how you like responses will be private and used to make other pe Thinking about the ASH staff who you interact with	d or dislike oples' tim	ed the sen e better at	vices you have t the hospital.	received.	Your
	Never	Rarely	Sometimes	Often	Always
Talking with staff gives me hope.		0	0		
Staff help me think about what I want for my life.	0	0	0	0	
Talking with staff helps me believe in myself.		. 0		. 0	
Staff encourage me to participate in my treatment.	0	0	0	0	О
Staff include me in decisions made about me and my treatment.	0	0	0	С	О
Staff are easy to talk to.	0	0	0	0	0
Staff are sensitive to my situation and my history.	0	0	0	0	0
Staff respect me and my beliefs.	0	0	0	0	0
Thinking about yourself, please rate the frequency I am a capable person.	with which Never	h you beli Rarely	Sometimes	ving: Often	Always
I have a right to make my own decisions, even if others do not agree.	0	0	0	0	0
By working with others, I can help change my community.	0	0	0	0	0
I am able to influence what happens in my life.	0	0	0	0	0
I have inner strength.	0	0	0	0	0
My past experiences have prepared me for my future.	0	0	0	0	0
I believe that each day has potential.	0	0	0	0	0
I feel that my life has value.	0	0	0	0	0