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## **Predictors of flexibility in social identity among people entering a therapeutic community for substance abuse**

**Running Title: Social identity change in a therapeutic community**

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**Abstract**

One of the key aspects of recovery from substance dependence is making a transition from a social network supportive of substance use to one that supports recovery. The current study assessed this transition in social identity in an adult Therapeutic Community (TC) at baseline and two weeks into treatment. Where residents increased identification with the TC, and reduced social identification with using groups, retention in treatment improved. As retention is a proxy measure of positive outcomes, this pilot suggests that facilitating residents' positive identification with the community in the first weeks of treatment may be central to retaining residents and improving treatment outcomes.

**Key words:** *social identity, social networks, recovery, therapeutic community*

## Introduction

Initiation and progression of alcohol and drug use has a marked influence on individuals' social functioning, their self-perceptions, and their identity (Best, Manning, & Strang, 2007; Shinebourne & Smith, 2009). New routines and changes in social networks are a part of the identity changes people experience as their substance use changes, whether increasing or decreasing (Shinebourne & Smith, 2009).

Two mechanisms that have been shown to assist in recovery from problematic substance use are changes in an individual's social network, and an increased sense of being able to maintain abstinence in high-risk social environments (Kelly, Hoepfner, Stout, & Pagano, 2012). A strong predictor of recovery from problematic alcohol use is moving from a social network supportive of drinking to a social network that supports recovery (Longabaugh, Wirtz, Zywiak, & O'Malley, 2010). In fact, belonging to a peer network including other people in recovery is one of the strongest predictors of increased quality of life among those in recovery (Best, Gow, Taylor, Knox, & White, 2011). Treatment providers are well positioned to assist individuals struggling with problematic substance use tap into supportive social networks and prosocial groups.

One type of treatment facility that focuses on social network change is the therapeutic community. Therapeutic communities (TCs) have been operational for alcohol and other drug problems since the 1960s (De Leon & Wexler, 2009). Individuals admitted to TCs agree to subscribe to a set of community rules for the duration of their stay, including no substance use, participation in a structured program of group activities, and contribution to the upkeep of the community. Social factors are emphasised within the therapeutic program; one's interactions with others and role within the community become an important part of the "community as method" approach to treatment (De Leon, 2000). Key to a successful outcome is becoming an active and engaged member of the community, through phases of early 'engagement', 'immersion' in the life of the TC and a subsequent 'emergence' and re-engagement with the external community. Therapeutic

Communities will also vary in the extent to which they will have phased re-entry to the external community, involving ongoing support and supported accommodation options. De Leon discusses this process in identity terms, as “dissipation of old identity elements, restructuring elements of new social and personal identities during treatment, and continued identity development beyond treatment in the real world” (2000, p. 345). What remains unclear are the mechanisms through which this identity change takes place. What we do know, however, is that longer retention in the TC is related to better treatment outcomes (Vanderplasschen et al., 2013).

Social Identity Theory (Tajfel & Turner, 1979) states that identity is at least in part derived from the social networks to which one belongs. These might be based on family, friendships, profession, interests, and so on, with group memberships having a strong, reciprocal relationship with self-identity, values and beliefs. People can belong to many social groups hence draw from a number of social identities, with situational factors influencing which social identity is likely to be salient in a given context (Hornsey, 2008).

Jetten, Iyer, Tsivrikos and Young (2008) have shown that developing a new social identity in part rests on the compatibility and continuity with existing identities. They reported that students were more likely to identify with the university environment if their family background was supportive of and familiar with the pursuit of university education. However, if the student themselves saw university as a means by which to better their financial position through better career or work prospects, they were more comfortable in assuming a university student identity, regardless of their family background. This model of social network change poses a challenge to a therapeutic approach that asks individuals to discard one strong identity (that of drinker or drug user) in favour of another identity that is inconsistent (recovery) and which requires the old identity to be left behind.

Evidence from the TC literature that is consistent with the social identity model demonstrates that the perceived benefit of treatment in a TC for substance use problems is associated with greater identification with the TC (Dermatis, Salke, Galanter, & Bunt, 2001). Furthermore, successful engagement with the TC in the first month of treatment is shown to contribute to longer retention in treatment (IBR Texas Christian University, 2010), which in turn has been shown to relate to better treatment outcomes (Vanderplasschen, et al., 2013). Again, this does not address the mechanisms through which this identity change takes place, or how pre-existing social factors might influence the process of social identity change.

This pilot study explores the mechanisms of identity change in a TC. Based on previous findings (IBR Texas Christian University, 2010), it is hypothesised that data in this study will also show that changes in social identification within the first four weeks of stay at the TC predict retention in treatment. The main focus of the study, however, is to explore the impact of various pre-existing social factors and changes in social engagement on successful retention and completion of treatment within a TC environment. The research questions to be explored in this paper are:

1. What is the quality of social networks substance users are involved in prior to entering the TC?
2. What aspects of a person's pre-admission social networks contribute to more ready identification with the therapeutic community, and what aspects are associated with stronger ties to the substance-using network at admission?
3. How much do these pre-admission social factors influence an increase in TC social identity and the lessening of using group social identity?
4. To what extent are pre-admission factors linked to retention, or completion of treatment?

## Method

### Setting

This study was set in a 36 bed residential rehabilitation facility in north-eastern Australia that operates as a therapeutic community. The aim of the programme is to assist residents to make behaviour and lifestyle changes that enhance their health and wellbeing. This includes, but is not limited to, ceasing substance misuse. The programme is designed to encompass a six month stay, but shorter tailored programmes can be negotiated.

### Participants

Ninety-six participants initially agreed to take part in the study and were able to provide pre-admission data. These participants ranged in age from 19 to 63 years ( $M=35.5$ ,  $SD=9.3$ ); 60% were male; 87.5% identified as 'white'; 10.5% were married, 62% had never been married, and 24% were separated or divorced. The majority of participants were seeking treatment in relation to problems around the use of alcohol (38.9%), amphetamines (27.4%) or heroin (12.6%), with mean number of years of use 16.6, 9.4 and 6.4 respectively. Recent polydrug use (in the last 30 days) was reported by 48% of residents. The mean number of previous treatment episodes undertaken for drug and alcohol treatment was three. Around half (49%) of residents had been on medication in the last 30 days for psychiatric problems and 28% had recently experienced serious thoughts of suicide, with 37% reporting a previous suicide attempt. Outcome data were only available for 45 residents, who had either completed or dropped out of the program by the end of the study, as the remaining participants were still in treatment at this point.

### Measures

To assess what areas of a person's life their substance use has affected and to what extent, the Addiction Severity Index (ASI) 5<sup>th</sup> edition (McLellan, Cacciola, Alterman, Rikoon, & Carise, 2006) was used. This is a semi-structured, clinician-administered interview that assesses seven functional

domains: drug and alcohol use, medical health, psychiatric health, legal issues, employment/financial support, and family/social relationships.

Information about participants' relationships prior to entering the therapeutic community was extracted from this interview. This included marital status, how they spent their free time, previous experiences of abuse, and relationships in which there was conflict or closeness. From these items, the quality of participants' relationship was determined in relation to levels and extent of support, conflict and abuse.

A four item scale widely used in social identity research, called the Social Identification Scale (Doosje, Ellemers, & Spears, 1995), was used to assess participants' identification with the therapeutic community. Items such as *"I see myself as a member of the [TC name] community"* are rated in agreement from 1=*not at all* to 7=*very much*, and scores are averaged to give an overall score between one and seven. Cronbach's alpha for this scale in this study ranged from .73 to .92 across four data collection points. The Social Identification Scale (SIS) was not used to assess participants' identification with substance-using peers so this was assessed using the item *"I miss my drug use or drinking social group"*, which participants also rated on the scale from 1=*not at all* to 7=*very much*, making it comparable to the SIS.

Social support before admission was measured using three survey items (Cronbach's alpha = .89) drawn from a set of 10 social support items used in previous research on social identity and stress (Haslam, O'Brien, Jetten, Vormedal, & Penna, 2005). Social support items were again rated in agreement on a 7 point likert scale from 1=*not at all* to 7=*very much*, and scores for the three items were then averaged to obtain an overall score.

Finally, retention in the TC was measured as both a continuous variable (days at the TC) and a binary variable (whether or not the client graduated from the program).



## **Procedure**

Participants were initially interviewed during their first week of treatment, after they had provided written informed consent. Participants were informed that participation was voluntary and not a condition of acceptance into the therapeutic community. Participants completed the Addiction Severity Index (ASI) during a clinical research interview, before completing the self-report questionnaires on their own. The questionnaires were re-administered at two weeks (Time 2), four weeks (Time 3), six weeks (Time 4) and eight weeks (Time 5) and again upon exiting the TC program. Ethics approval for the study was granted by the University of Queensland Behavioural and Social Sciences Ethics Review Committee.

The design of the current paper uses data from three time points. The baseline assessment measures were used, including the ASI and demographics, as well as social identification with using groups and with the therapeutic community, and social support measure. The social identification and social support measures at subsequent fortnightly intervals (Time 1 – Time 4) were also used, as well as retention and completion data, which were obtained from client files for those who had left the TC approximately 6 months later.

## **Results**

Initial analyses considered the quality of participants' relationships prior to entry into the TC. Scores on the social functioning sub-scale of the Addiction Severity Index indicate that, in the month prior to admission, 38.5% of participants reported no serious conflict with anyone in their social network, whilst 35.4% reported serious conflict within one or two categories of relationships (see Table 1).

INSERT TABLE 1 ABOUT HERE

The remaining 26% had serious conflict in three or more categories of relationships. Across their lifetime, only 4.2% of participants reported no serious conflict with anyone, while 7.3% of participants reported serious conflict within one category of relationship. The vast majority of participants (88.5%) reported a lifetime history of serious conflict in at least two, and up to nine, different categories of relationships.

Despite this level of conflict, almost all participants (97.9%) reported at least one category of close relationship, with five out of six participants (83.3%) reporting three or more categories of close relationships. Only 2.1% of participants reported no close relationships.

Correlations between types of relationships in which there was serious conflict and abuse demonstrated a significant correlation between the two, both within the last 30 days ( $r = .603, p < .001$ ) and over the lifetime ( $r = .394, p < .001$ ), suggesting the more conflict in a relationship, the more likely there was to be abuse. Correlations between conflict in the last 30 days and conflict over the lifetime were also significant ( $r = .556, p < .001$ ) suggesting that conflict within participants' relationships often remains unresolved. Likewise, correlations between types of recent abuse and abuse across the lifetime were also significant ( $r = .450, p < .001$ ), suggesting that some types of abuse remain ongoing for some participants.

The only variable with any significant correlation with 'types of close lasting relationships' was a negative correlation with 'types of abuse in the past 30 days' ( $r = -.228, p = .025$ ) suggesting that, in the social worlds of residents prior to admission to the TC, having more close relationships was a protective factor against abusive relationships.

The quality of relationships of participants prior to entry into treatment had no relationship to self-report scores on social identification with the TC or with previous substance-using groups. Consequently, we explored other pre-entry social factors for relationships to baseline scores on

social identification with the TC and using groups. The results of these analyses can be found in Table 2.

Prior to entry to the TC, over half the participants (54.5%) stated that they were satisfied with the way they spent their free time, while almost one in three (31.2%) were not satisfied. The remaining 14.3% stated that they were indifferent. Those satisfied with the way they spent their free time prior to admission missed their substance-using social group significantly more than those who were not previously satisfied with how they spent their free time ( $t(64)=3.84, p<.001$ ). In addition, participants who did not have children missed their substance-using social group significantly more than those who had children with whom they were close ( $t(47.5)=2.561, p=.014$ ). Finally, participants who had no problems with a sexual partner in the 30 days prior to entry missed their substance-using social group significantly more than those who had significant problems with their partner ( $t(70)=2.275, p=.026$ ).

INSERT TABLE 2 HERE

Although these social factors related to initial ratings of social identification with at least one group, none of these factors showed any relationship to subsequent ratings of social identification, or to changes in social identification, whilst in the TC with either group.

In exploring participants' social identification whilst in the TC, a negative association was found between missing one's drinking or drug using social group and identifying with the TC from Time 2, two weeks after entering the TC ( $r = -0.275, p=0.027; N=65$ ).

The mean endorsement of the question "*I miss my drug use or drinking social group*" reduced from 3.1 at entry to 2.2 at Time 4 (entry +6 weeks), indicating decreasing agreement with the statement. Conversely, the mean for scores on the Social Identification Scale increased from 5.3 at entry to 5.6

at Time 4, indicating increasingly positive identification with the TC. There were consistently strong negative associations between identification with the TC and missing one's using networks, through all four time points (see Table 3).

INSERT TABLE 3 ABOUT HERE

Changes in ratings of social identification with both the TC and previous substance-using groups at each time point were then explored to test which, if any, of these predicted retention in, or completion of, the TC program. Results showed that participants who graduated from the TC reported a significantly greater increase in social identification with the TC in the first two weeks (mean increase = 0.68), than those who left the program prematurely (mean increase 0.17;  $t=2.342$ ,  $p=.024$ ).

The data also showed a significant positive correlation between change in social identification with the TC in the first 2 weeks and days stayed in the TC ( $r = .402$ ,  $p = .006$ ), as seen in Table 4. An increase in social identification with the TC also correlated with a decrease in social identification with the substance-using social group in the first two weeks ( $r = -.349$ ,  $p = .020$ ). There was also an inverse but non-significant relationship between days stayed in the TC and reduction in social identification with the using group.

INSERT TABLE 4 ABOUT HERE

No pre-admission social network factors were associated with days retained in the TC or with program completion. A linear regression analysis found that the above two social identification change measures accounted for 11.8% of the variance in the number of days participants stayed in the TC. This model was a good fit and reached significance ( $F=3.871$ ,  $p=.029$ ). However, only an increase in social identification with the TC in the first two weeks was shown to be a significant

predictor of retention ( $t = 2.038, p = .048; \beta = 28.56$ ) indicating that, for every one-point increase in social identification with the TC in the first two weeks, days stayed in the TC increased by around four weeks.

### **Discussion**

This pilot study looks at social network factors that may enhance or inhibit identification as a member of a recovery-focused social environment (a therapeutic community). The study explores the relationship of these variables to retention in, and completion of, the therapeutic programme to gain insight into mechanisms of identity change and the relationship of these factors to treatment outcomes.

The population studied were a group with a history of interpersonal problems and abuse, and who continued to be involved in a range of conflict-filled relationships at the point of entry to the TC. Previous research suggests it is likely that, as a person becomes more heavily involved in substance-using networks, their previous social connections break down (see Best, et al., 2007; Shinebourne & Smith, 2009). This makes it difficult to know if the poor quality of participants' social environment is due to their substance misuse or if this conflict and abuse existed within the social environments in which they were using or drinking at harmful levels.

While pre-admission factors, such as satisfaction with free time, friendship quality and history of abuse, have some limited influence on initial levels of social identification with the TC, they do not predict changes in social identification or retention in the TC. However, the early shifts in social identity towards a stronger affinity with the TC, and reductions in the extent of identifying with the former using group, are predictive of retention in treatment, predicting more than 10% of the variance in days stayed in the TC. In other words, the more that a resident internalises the social norms and values of the TC early in treatment, the longer it is likely they will stay in treatment. This

is important because retention in Therapeutic Communities has been shown to be associated with better treatment outcomes (Vanderplasschen, et al., 2013).

Whilst a number of social factors contributed to social identification with the TC and with the former substance-using group at admission into the program, these factors did not contribute to the observed increase in social identification with the TC over time, or to the decrease in social identification with the former using group. This does not give insight into the precursors of social identity change. What it does suggest, however, is that there is some element of the TC program that overrides previous social factors; the most obvious and therefore most likely element is a change in social environment for the residents, which may foster an emerging commitment to recovery-focused peers and to the TC. This is consistent with the foundational principles of the social identity approach that the social identity one enacts is shaped by the social environment in which one is located (Tajfel & Turner, 1979).

On average, participants identified more with the TC than they did their using group at each time point, suggesting that their values fit more with the social environment of the TC than with the social environment provided by their substance-using group. Previous research suggests this is likely due to the perceived benefit of treatment (Dermatis, et al., 2001), which enables the internalisation of a recovery-focused social identity.

This pilot study is limited in its ability to represent the majority of AOD service clientele, or the majority of people who use substances, for a number of reasons. Firstly, TC residents also traditionally represent a population with the most complex substance use problems and high levels of psychological and social dysfunction. Additionally, the data are derived from residents of one TC in the north-east of Australia. The culture within each TC will vary based on the residents at any given time. There has also been evidence of a difference between the treatment approaches used in TCs in different countries, based on cultural differences (Broekaert, Vandeveld, Soyez, Yates, &

Slater, 2006) and this is likely to be the case in a country as large and as geographically isolated as Australia. Consequently, these results may not be generalisable on an international level, although results in the US also found that early engagement is predictive of retention in treatment for adolescents (IBR Texas Christian University, 2010).

It is also important to note that the study had a high attrition rate resulting in a low number of participants during the period of the study. Given the short time period of data collection, compared to the length of the program, there were also a small number of participants with any treatment outcome available at the end of data collection, producing a bias towards including participants who may have dropped out of the program prior to completion. Results are therefore based on a small and potentially skewed sample size, further limiting the statistical and predictive power of the findings. These results are intended to be exploratory in nature and should therefore be used as indicators only. It is recommended that the study be replicated across a number of TCs and with a more generous timeframe for data collection.

The study was intended as a pilot hence these limitations are to be expected. Initial indicators suggest that, of all available social factors, the major predictor of retention and completion is how much a person's social identification with the TC increased in the first two weeks of the program. This gives some indication that treatment providers may do well to focus on social cohesion in the first few weeks of a resident's treatment to enhance their identification with the social norms and values of the therapeutic community.

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Table 1. Quality of social network indicators prior to entry (N=117)

Number	Types of relationships with serious conflict <sup>a</sup>		Types of close, lasting relationships <sup>a</sup>	Types of abuse experienced <sup>b</sup>	
	past 30 days	lifetime		past 30 days	lifetime
0	38.5	4.2	2.1	65.6	30.2
1	21.9	7.3	10.4	26.0	26.0
2	13.5	15.6	4.2	6.3	24.0
3	5.2	16.7	22.9	2.1	19.8
4	8.3	17.7	27.1		
5	7.3	16.7	24.0		
6	2.1	12.5	9.4		
7	2.1	5.2			
8	1.0	3.1			
9	0.0	1.0			
Total	100.0	100.0	100.0	100.0	100.0

<sup>a</sup> 9 types of relationships : with mother, father, siblings, partner/spouse, children, other significant family, close friends, neighbours, and co-workers

<sup>b</sup> 3 types of abuse : emotional, verbal and physical

Table 2. Pre-entry social factors that enhance &amp; inhibit identification with the TC at admission

	M	<i>t</i>	<i>p</i>
	missing substance-using social group		
Satisfaction with free time	yes = 3.57 no = 2.09	3.840	<0.001
Close relationship with children	yes = 2.54 n/a = 3.68	2.561	0.014
Serious Problems with Sexual Partner, Recent	yes = 2.35 no = 3.39	2.275	0.026
	social identification with TC		
Close, lasting relationship with Friends	yes = 5.49 no = 4.78	2.266	0.027
Serious Problems with Father, Lifetime	yes = 5.35 no = 4.67	2.063	0.043
Experience Physical Abuse, Lifetime	yes = 5.55 no = 5.02	2.027	0.046

Table 3. Correlations (Pearson's  $r$ ) between participants' scores on Doosje's Social Identification Scale and indication of missing using groups.

I miss my drug / drinking social group	Enter TC	Social identification with TC				
		Time 2	Time 3	Time 4	Time 5	At exit
Enter TC						
Time 2		-.275*	-.339*	-.438*		
Time 3		-.377*	-.466***	-.447*	-.515*	
Time 4		-.467**	-.399*	-.471**	-.545**	
Time 5			-.462*	-.480*	-.411	
At exit						

\* $p < .05$   
 \*\* $p < .01$   
 \*\*\* $p < .001$

Table 4. Correlations between change measures of social identification and retention

	1	2	3
1. Days in TC	1	.402**	-.271
2. Change in TC identification		1	-.349*
3. Change in using group identification			1

Change is from baseline to 2 weeks

\*\*p<.01

\*p<.05