A FACTOR ANALYSIS OF THE IMPORTANT PEOPLE INVENTORY

DAVID R. GROH1,*, BRADLEY D. OLSON2, LEONARD A. JASON1, MARGARET I. DAVIS3 and JOSEPH R. FERRARI4

1Center for Community Research, DePaul University, Chicago, IL, USA,
2Foley Center for the Study of Lives, Northwestern University, USA,
3Department of Psychology, Dickinson College, USA and
4Department of Psychology, DePaul University, USA

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Abstract — Aims: For well over a decade, the Important People Inventory (IP, Clifford and Longabaugh, 1991; Clifford et al., 1992) has been used to collect a wide range of valuable information regarding network support for alcohol use. However, because of psychometric limitations and varied adaptations of the IP, the following study performed factor analyses to develop a more structurally consistent model of the scale as compared to the existing model. Methods: A first principal components analysis was run on the indices of the IP using data from a national investigation of residents within a recovery community (N = 897). Next, a second principal components analysis was run using data collected from participants recruited from inpatient treatment settings (N = 150). Results: Results indicated a nine-index, three-factor model, which explained about two thirds of the common variance. These three factors included: Support for Drinking from Network Members (3 items), Drinking Behaviours of Network Members (3 items), and General Social Support (3 items). Conclusions: Results of both studies suggest that the IP fits a multi-component structure. It is recommended that Drinking Behaviours of Network Members be examined for predictive validity and that General Social Support be removed from the scale or have additional items added.

INTRODUCTION

For individuals in alcohol recovery, contextual characteristics of the social environment such as social support have an effect on treatment acceptance and provide resources that may influence post-treatment functioning (Finney et al., 1980). For this reason, it is important to explore the social support networks that are available for people in recovery. While social support is defined simply as the resources that others provide, it is a concept that may be broken down into different dimensions (Cohen et al., 2000; Cohen and Wills, 1985).

When examining social support, it is important to distinguish between general social support and alcohol-specific support (Longabaugh and Beattie, 1986). General social support is defined as support for the recipient’s overall well-being (Cohen et al., 2000; Cohen and Wills, 1985). Measures of general support often combine structural aspects (e.g. the number of people in a network) with functional aspects (e.g. the meaningfulness of that support) to obtain a global assessment of network social support. Studies indicate that general social support is often related to positive treatment outcomes. For example, people who receive more general support possess higher levels of subjective well-being, which is linked to improved post-substance abuse treatment outcomes (Beattie et al., 1993). In addition, social networks that are larger (Zywiak et al., 2002) and include more supportive relationships (MacDonald, 1987) may be more likely to promote effective recovery.

Specific social support, in contrast, is directly tied to certain functions such as alcohol use (Longabaugh and Beattie, 1986). Alcohol-specific support has either a positive or negative impact on recovery depending on whether the relationships provide positive encouragement for abstinence/reduced use (i.e. specific support for abstinence) or negative encouragement for drinking (i.e. specific support for alcohol use; Falkin and Strauss, 2003). For instance, Zywiak et al. (2002) found that recovering individuals who remained in close contact with pre-treatment networks encouraging alcohol use were more likely to relapse, while individuals whose networks reflected less use were more likely to maintain abstinence. Additionally, people in recovery tend to gain friendship with those who abstain from alcohol and avoid relationships with those who drink (Mohr et al., 2001), presumably increasing their network support for recovery. Moreover, studies show that social support specific to an individual’s alcohol use is a more consistent predictor of treatment outcomes than general support (Beattie and Longabaugh, 1999; Havassy et al., 1991; Longabaugh et al., 1993).

One of the most significant social support instruments within the alcohol recovery literature is the Important People Inventory (IP, Clifford and Longabaugh, 1991; Clifford et al., 1992; derived from the Important People and Activities Inventory). This measure gathers information regarding general and alcohol-specific types of support. This scale contains 11 indices (see Table 1), which have been combined to create a summary measure for predicting alcohol use, labelled Network Support for Drinking (Longabaugh et al., 1998). The scale is also conceptualized as a two-factor model with two composite scores: Investment in the Identified Network (indices 1–3), which moderates the influence that the support network has on promoting a participant’s alcohol use, and Support for Drinking (indices 4–11), which assesses the degree to which a person’s network is supportive of alcohol use (see Longabaugh et al., 1998).

The IP is continuously being developed, and therefore researchers have tailored the scale to the specific needs of their studies. For example, Davis and Jason (2005) modified...
studies utilized separate indices (see Jason, mean of indices 9–11). Furthermore, numerous subscales: Schmitt (2003) dropped indices 1–3 and constructed two abstainers and recovering alcoholics in network). In addition, 8 (amount of contact with one’s network; percentage of network members drink) and the product of indices 2 and contains two subscales: index 5 (frequency with which network members drink). 9. Most support for drinking among most important people. 10. Least support for drinking among most important people. 11. Average support for drinking among most important people. 

The items of the IP are summed to create 11 different indices, each of which is standardized to have a mean of 0 and a standard deviation of 1. Indices 1, 2, 3, and 8 are reverse scored to all point in the same direction, with higher values signifying greater support for drinking.

Investment in the identified network composite score:
1. Number of people in the network.
2. Amount of contact with one’s network.
3. Average importance of most important people.
4. Drinking status of network members.
5. Frequency with which network members drink.
6. Maximum drinking of network members on a drinking day.
7. Percentage of heavy drinkers in the network.
8. Percentage of abstainers and recovering alcoholics in the network.
9. Most support for drinking among most important people.
10. Least support for drinking among most important people.
11. Average support for drinking among most important people.

* = Reverse scored.

the scale to include questions specific to a communal-living recovery experience. Studies have also customized the measure to assess support specific to participants’ drug use in addition to alcohol use (see Jason et al., 2006; Jason et al., 2007; Majer et al., 2002; Schmitt, 2003). Additionally, studies used the IP to assess support for abstinence instead of support for use (see Beattie and Longabaugh, 1999; Majer et al., 2002).

In addition to being in a dynamic developmental stage, there are several other concerns with the IP. While Beattie et al., (1993) reported acceptable internal consistency values for the IP subscales and total items (i.e. Cronbach’s alpha was 0.66–0.67), more recent studies including Study 1’s parent study (Davis and Jason, 2005; Jason et al., 2007) found acceptable alphas for the summary score and the Support for Drinking composite score (0.62–0.73), but low alphas for the Investment in the Identified Network composite (0.31–0.43). Furthermore, Zywiak et al. (2002) found weak correlations between the indices and the summary score, with one index correlating negatively with this overall aggregate. Such low and negative correlations are problematic because the summary score is an aggregate of these 11 indices. A final concern is that the IP is often time consuming because participants must complete the measure multiple times for up to 11 important network members and 4 most important network members.

In reaction to these concerns, numerous studies discarded the summary and composite scores and made use of smaller subsets of items for scoring purposes. For example, Schmitt (2003) created a brief 9-item, self-report version of the scale to reduce administration time. Zywiak et al. (2002) created the Brief Important People Interview, which only contains two subscales: index 5 (frequency with which network members drink) and the product of indices 2 and 8 (amount of contact with one’s network; percentage of abstainers and recovering alcoholics in network). In addition, Schmitt (2003) dropped indices 1–3 and constructed two subscales: Others’ Use (mean of indices 4–8) and Reactions of Others (mean of indices 9–11). Furthermore, numerous studies utilized separate indices (see Jason et al., 2006; Jason et al., 2007; Majer et al., 2002; Mohr et al., 2001) or simply individual scale items as individual variables (see Beattie and Longabaugh, 1999; Flynn et al., 2006; Groh et al., in press; Mohr et al., 2001).

Because of the psychometric limitations and varied adaptations of the IP, the following study used a factor analytic approach to develop a more structurally consistent model of the scale as compared to the existing two-factor model. No other previously published studies have conducted a factor analysis specifically on these 11 indices to determine the most psychometrically reliable scoring mechanisms (see Longabaugh et al., 1993; Clifford et al., 1992, for factor analyses of the Important People and Activities Inventory). Studies 1 and 2 contain principal components analyses of the scale’s indices using distinct substance abuse recovery samples.

METHODS

Participants
Secondary data analysis was conducted using two samples of individuals in substance abuse recovery. Study 1 consisted of 293 women and 604 men who were current residents of a network of recovery homes known as Oxford House (see Jason et al., 2007). The sample was ethnically diverse, with 58.4% European American, 34.0% African American, 3.5% Hispanic/Latino, and 4% consisting of others. The average age of the sample was 38.4 (SD = 9.2) and the average education level was 12.6 (SD = 2.1) years. Regarding marital status, 49% were single or never married, 46.2% were divorced, widowed, or separated, and only 4.8% were currently married. The average participant had undergone alcohol treatment 2.8 (SD = 4.2) times and drug treatment 2.9 (SD = 3.5) times. During the 90 days prior to the assessment, 15.7% of participants had used either alcohol or drugs.

Study 2 consisted of 93 women and 57 men who were just completing treatment at a substance abuse facility (see Jason et al., 2006). As for ethnic status, this sample consisted of 77.3% African-American, 11.3% Caucasian, 8% Hispanic/Latino, and 3.3% others. The average participant was 37.1 (SD = 8.1) years old and had 12.0 (SD = 2.1) years of education. With reference to marital status, 60.5% were never married, 26.5% were divorced, widowed, or separated, and 12.9% were married. The sample had a lifetime average of 3.2 (SD = 2.1) episodes of inpatient and 0.8 (SD = 2.6) episodes of outpatient substance abuse treatment. In the past six months, 93.3% of participants had used either alcohol or drugs.

Psychometric measures
The Important People Inventory (IP, Clifford and Longabaugh, 1991; Clifford et al., 1992) was administered in both studies. This scale is a modified version of the Important People and Activities Inventory, such that the items that comprise the Activities portion are omitted. Because this scale has various adaptations and administration manuals, it is important to note that the version administered in this project was adapted from the edition developed by Clifford.
and Longabaugh (1991) for use in Project MATCH. The IP requires participants to identify important members in their networks with whom they have had frequent contact within the past six months. In the first section of the IP, labelled the Important People section, a participant is asked to identify up to 12 social contacts who are above 12 years. For each person the participant lists in his/her network, the scale examines the type of relationship (e.g. spouse, parent, friend, co-worker), the duration of relationship in years, and the frequency of contact. In addition, the participant assesses how often the network member drinks, how much the network member drinks on a maximum drinking day, and the network member’s overall drinking status (i.e. heavy, moderate, light, abstainer, or recovering). In the next section, called the Most Important People (MIP) section, the participant chooses up to four network members who were the most important over the past six months. The participant then rates each network member’s importance, how much he/she likes the person, and how the person reacts to the participant’s drinking.

Response options for IP items vary greatly and include ordinal scales (ranging from 0 to 4 or 1 to 12), fill in the blank items, and yes/no questions (Clifford and Longabaugh, 1991). Each possible answer is given a number for scoring purposes. Sample items include: Drinking status of person (responses include 5 = heavy user, 4 = moderate user, 3 = light user, 2 = abstainer, 1 = recovering), and How has/or how would this person react to your drinking? (responses include 5 = encouraged, 4 = accepted, 3 = neutral, 2 = didn’t accept, 1 = left or made you leave).

Items are summed to create 11 different indices (see Table 1), each of which is standardized to have a mean of 0 and a standard deviation of 1 (see Zywiak, 2000, for scoring details). In addition, several of the indices (i.e. 1, 2, 3, 8) are reverse scored so that all indices are in the same direction, with higher values signifying greater support/encouragement for drinking. Longabaugh et al. (1998) found correlations between indices to vary widely from —0.70 to 0.91 and we found correlations between indices to range from —0.40 to 0.92 in Study 1 (see Table 2). The 11 indices are often combined to create a summary measure along with two composite scores (see Longabaugh et al., 1998). The summary measure, Network Support for Drinking, is created by summing all 11 normalized indices and performing a final z-transformation on this aggregated score. The first composite score, Investment in the Identified Network, is computed by summing indices 1–3. Support for Drinking, the second composite score, is a summation of indices 4–11.

Indications of the measure’s psychometric properties have demonstrated 2–3 day test-retest reliability of 0.95 (Longabaugh et al., 1998), a test-retest reliability for heavy substance abusers of 0.94, and a reliability for abstinent users of 0.96 (Del Boca et al., 1995). Strong construct validity was
also demonstrated across IP subscale indices (0.80) based on respondents’ verbal self-reports when compared to information collected from significant others (Longabaugh et al., 1993; Longabaugh et al., 1995). To date, no factor analysis has been conducted focusing on these specific indices.

One additional psychometric measure was utilized in these studies. Substance use was measured by questions taken from Miller and Del Boca’s (1994) Form 90 Timeline Followback. This instrument assesses activities that occurred during the past 90 days, focusing on areas such as general health care utilization, residential history, and substance use. This study specifically focused on this item: Number of Days Consuming any Amount of Alcohol in Past 90 Days.

Procedures

The two samples consisted of individuals recovering from substance abuse. In both studies, informed consent was given, complete anonymity and confidentiality of responses was assured, and financial incentives were provided. In Study 1, residents of self-run communal living settings called Oxford Houses were recruited through an announcement published in a monthly newsletter distributed throughout these homes (see Jason et al., 2007). Members of the research team contacted participants via letters to the houses, conducted follow-up phone calls, and wherever possible, arranged for a visit. Of the 189 recovery houses approached, 169 (89.4%) had at least one participant via letters to the houses, conducted follow-up procedures, and financial incentives were provided. In Study 1, informed consent was given, and financial incentives were provided.

RESULTS

Study 1

Before performing factor analysis, indices 5 and 6 were removed from the model. Index 5 (frequency with which network members drink) was removed from the model because of its extremely high correlation with index 4 (drinking status of network members), r(863) = 0.92, p = 0.000 (see Table 2; Zywiak et al., 2002) reported a similarly high correlation. Although these two indices assess essentially analogous information (drinking habits), we decided to retain index 4. We believe that drinking status is a more sensitive measure of consumption because it makes a distinction between individuals in recovery versus those who simply choose to abstain, whereas drinking frequency does not. Additionally, in our experience, participants frequently fail to respond to a question needed to compute index 6 (When this person uses alcohol, what is the most that he/she uses in a single day?), most likely because they did not possess this highly specific knowledge regarding their network members’ drinking. For example, in Study 1, only about 60% of participants responded to this question. This index correlates moderately and significantly with index 4, r(576) = 0.45, P = 0.000, and index 5, r(576) = 0.48, P = 0.000, suggesting that index 6 is somewhat redundant and does not seem to contribute conceptually distinct information to the measure.

Using Study 1 data, an exploratory principal components analysis was conducted on the remaining 9 indices of the IP (listwise deletion was utilized for missing values). A Scree test indicated a three-component solution explaining 65.1% of the variance, with each component having an Eigenvalue greater than one. The first component explained 27.2% (Eigenvalue = 2.4), the second explained 21.8% (Eigenvalue = 2.0), and the third explained an additional 16.2% of the variance (Eigenvalue = 1.5). We used Varimax rotation with Kaiser Normalization in order to produce independent factors. As shown in Table 3, each IP index loaded distinctly and highly (>0.7) onto only one component, with the exception of index 3 (highest loading = 0.25). Component 1 contained 3 items that express Support for Drinking from Network Members (indices 9–11; Cronbach’s alpha = 0.81). The second component yielded 3 items that describe Drinking Behaviours of Network Members (indices 4, 7, 8; Cronbach’s alpha = 0.75). Finally, the third component contained 3 items that express General Social Support1 (indices 1–3; Cronbach’s alpha = 0.43).

In Study 1, a large national investigation of individuals residing in a recovery community (see Jason et al., 2007), a principal components analysis suggested a three-factor model of the Important People Inventory. However, because this study focused on recovering individuals within a single communal-living model (Oxford House), there are potential limits to the generalizability of the sample. Moreover, participants were recruited from these settings instead of randomly sampled from recovery or treatment populations. In addition,

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1 Although Longabaugh et al. (1998) labelled this factor Investment in the Identified Network, we feel that these three indices provide a better assessment of general social support than network investment. For example, larger networks (index 1) do not necessarily lead to greater investment.
at the time of assessment, participants had various lengths of stays in the houses and were at various stages in their substance abuse recovery. Study 2 helps to overcome these potential limitations because the sample consists completely of individuals from inpatient treatment facilities (see Jason et al., 2006).

Study 2
To determine whether this model replicates across samples, we again produced a three-factor model using principal components analysis with data from Study 2 (with indices 5 and 6 excluded). This three-component solution explained 65.1% of the variance, with each component having an Eigenvalue greater than one. The first component explained 31.5% (Eigenvalue = 2.8), the second explained 19.4% (Eigenvalue = 1.7), and the third explained an additional 14.3% of the variance (Eigenvalue = 1.3). We again used Varimax rotation with Kaiser Normalization in order to produce independent factors. As shown in Table 4, each index loaded distinctly and highly (≥0.7) onto only one component, with the exception of index 1 (highest loading = 0.51).

As in Study 1, Component 1 contained the 3 items that express Support for Drinking from Network Members (indices 9–11; Cronbach’s alpha = 0.63). The second component again yielded 3 items that describe Drinking Behaviours of Network Members (indices 4,7,8; Cronbach’s alpha = 0.75). Finally, the third component contained the same 3 items that express General Social Support (indices 1–3; Cronbach’s alpha = 0.25).

**Discriminant validity**
It is possible that the factor structure produced in the above analyses may partially result from shared methods variance in two of the components. For example, Support for Drinking from Network Members contains three indices that are solely based on data from the MIP section involving only four network members. These three indices are also computed from just one question (How has/for how would this person react to your drinking?), creating some degree of positive association. In addition, indices 4 and 8 from the Drinking Behaviours of Network Members component are derived from a single question (Drinking status of person?) focusing on the 12 Important People, and thus are not independent of each other either. Given these shared methodological variances, it is not surprising that these sets of indices would hold together as unique factors. There is therefore a need to examine whether these factors are conceptually and not just methodologically distinct from each other.

To examine the discriminant validity of components 1 and 2, we ran correlations between each factor and alcohol abuse variables using data from Study 1. While Drinking Behaviours of Network Members had a significant positive correlation with number of days consuming alcohol in the past 90 days, \( r(865) = 0.21, P = 0.000 \), the correlation for Support for Drinking from Network Members was not significant, \( r(814) = 0.07, P = 0.000 \). In addition, Drinking Behaviours of Network Members had significant associations with length of alcohol sobriety, \( r(868) = -0.07, P = 0.03 \), and number of days spent in residential detox in the past 90 days, \( r(654) = 0.08, P = 0.02 \), whereas these significant associations were not found for Support for Drinking from Network Members (length of alcohol sobriety: \( r[816] = -0.04, P = 0.21 \); number of past 90 days spent in residential detox: \( r[814] = 0.002, P = 0.95 \)). These findings indicate that Drinking Behaviours of Network Members consistently has a stronger relationship with alcohol abuse variables as compared to Support for Drinking from Network Members.

**DISCUSSION**
For well over a decade, the Important People Inventory has been used to collect a wide range of valuable information regarding social support for alcohol use, and the measure continues to be one of the most useful and comprehensive measures of this sort. Psychometrically, the internal consistency and overall structure (particularly with current scoring methods) remain points for concern. As a result, researchers of prior studies scored the IP in different ways and/or chose to use only a small subset of items for scoring purposes (e.g. Beattie and Longabaugh, 1999; Mohr et al., 2001; Schmitt, 2003; Zywiak et al., 2002). The present two studies provide several different directional steps toward the improvement of the measure.

Data from both Study 1 (a large national sample of residents of an abstinent, self-run, communal-living recovery setting) and Study 2 (a sample of individuals within inpatient treatment facilities) indicate that the IP fits a three-component structure (with indices 5 and 6 removed). These factors include: Support for Drinking from Network Members (indices 9–11; Cronbach’s alpha = 0.63). The second component again yielded 3 items that describe Drinking Behaviours of Network Members (indices 4,7,8; Cronbach’s alpha = 0.75). Finally, the third component contained the same 3 items that express General Social Support (indices 1–3; Cronbach’s alpha = 0.25).

**Table 4. Rotated factor loadings (Varimax) for the three-factor model of the IP (study 2).** Using Study 2 data, a principal components analysis (Varimax rotation) of the IP indices replicated the three-component model produced in Study 1. Each IP index loaded distinctly and highly onto only one component, with the exception of index 1.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index 11</td>
<td>0.90</td>
<td>−0.02</td>
<td>−0.15</td>
</tr>
<tr>
<td>Index 10</td>
<td>0.86</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>Index 9</td>
<td>0.82</td>
<td>0.21</td>
<td>0.16</td>
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<tr>
<td>Factor 2: Drinking behaviours of network members</td>
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<td></td>
<td></td>
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<tr>
<td>Index 4</td>
<td>16</td>
<td>0.93</td>
<td>0.07</td>
</tr>
<tr>
<td>Index 8a</td>
<td>−0.13</td>
<td>0.80</td>
<td>−0.05</td>
</tr>
<tr>
<td>Index 7</td>
<td>0.31</td>
<td>0.78</td>
<td>0.02</td>
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<tr>
<td>Factor 3: General social support</td>
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<td></td>
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<tr>
<td>Index 12</td>
<td>−0.01</td>
<td>−0.11</td>
<td>0.51</td>
</tr>
<tr>
<td>Index 2a</td>
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<td>0.07</td>
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</tr>
<tr>
<td>Index 3a</td>
<td>0.00</td>
<td>0.10</td>
<td>0.70</td>
</tr>
</tbody>
</table>

* N = 142. * a = Reverse scored.

2 Correlations for the General Social Support component were not significant for any of the alcohol abuse variables examined.
Drinking Behaviours of Network Members (indices 4, 7, 8), and General Social Support (indices 1–3). This is in contrast to the Support for Drinking (indices 1–5) and Investment in the Identified Network (indices 4–11) composite scores from the former two-factor model (Longabaugh et al., 1998). The Support for Drinking from Network Members and Drinking Behaviours of Network Members composites were found to have good internal reliability. In fact, when these two factors are compared with the original two-factor model using Study 1 data, the new model demonstrates stronger internal validity. Finally, this new model has the advantage of possessing 9 as opposed to 11 indices (i.e., less administration time).

We recommend that future researchers examine the Drinking Behaviours of Network Members component for predictive validity. Although somewhat counterintuitive, this component (which focuses on all 12 network members) maintained stronger associations with alcohol use variables than the other two components, even the one assessing support for drinking (which focuses on just the four MIP). This interesting finding may reveal whether one’s friends and family being drinkers has a greater impact on one’s alcohol use than whether these friends and family actually provide support for drinking. On the other hand, Zywiak et al. (2002) suggested that the drinking behaviours indices may have a stronger association with alcohol use simply because of how social support is measured (i.e., other network members or the entire network may influence use more than just the four MIP). The Project COMBINE IP adaptation (Longabaugh and Zywiak, 1999) avoids this issue by assessing all 12 network members’ reactions to the participant’s drinking. Some may argue that the lack of association between Support for Drinking from Network Members and alcohol use variables suggests a lack of independent utility for this factor. However, this component does have high factor loadings, strong internal reliability, and good face validity. Since this scale is still in the developmental phase, it is suggested that future researchers thoroughly explore the reliability and validity of this factor. We do not feel that the analyses presented here are sufficient to warrant the elimination of this factor at this moment.

We eliminated indices 5 (frequency with which network members drink) and 6 (maximum drinking of network members on a drinking day), and it is suggested that this scale may benefit from additional alterations, particularly with regards to the general support factor. Zywiak et al. (2002) argued that each of the first three indices (i.e., General Social Support) measure distinct aspects of the social network, which was confirmed in our data through low intercorrelations. Not surprisingly, we found this component to have low internal validity. Index 3 (average importance of MIP) and index 1 (number of people in the network) each loaded highly on General Social Support in one factor analysis but weakly in the other. In addition, index 3 correlated very weakly with the other 10 indices (all <0.10 in Study 1), suggesting that it does not fit well with the rest of the scale. These problems suggest that the general support factor is less consistent than the first two factors. As is commonly done with this measure, this component may benefit from the inclusion of additional items in order to improve reliability and validity. For example, Project COMBINE (Longabaugh and Zywiak, 1999) added a question on the general supportiveness of network members.

Future researchers may even choose to remove the General Social Support component from the scale, seeing that the IP is intended to measure support for drinking as opposed to general types of support. This approach was taken by Schmitt (2003), who removed the indices that make up this component from her version of this scale. Furthermore, numerous scales already exist for assessing general social support that possess good reliability and validity (for a review, see Heitzmann and Kaplan, 1988). One final suggested direction for this scale would be to create a computerized, self-administered version of the scale that would greatly ease the burden associated with administration.

Several potential limitations to this set of studies are worth addressing. Some selection bias may have occurred during recruitment with only the more successful or motivated recovering individuals choosing to participate (although in Study 2, 97.4% of those approached agreed to participate). In addition, these analyses may have limited generalizability because this investigation only focused on alcohol use (as originally intended by the IP) even though many participants were poly-substance abusers. Future research with this measure could therefore focus on measuring network support for any substance use (both alcohol and drugs). Because people in recovery tend to gain relationships with abstainers or recovering others (Mohr et al., 2001), it may be of further benefit to explore models of the IP assessing network support for abstinence in addition to network support for drinking. It is possible that the three-factor model produced in this investigation may simply result from shared methodological variance; however, we were able to establish discriminant validity for the support for drinking factor. Finally, critics might ask why we did not follow our first exploratory factor analysis with a confirmatory factor analysis using a program such as LISREL. Confirmatory factor analysis requires a stable and theoretically driven model to be tested, which as of yet does not exist for the IP. Our analyses are simply of an exploratory nature and have produced three factors with varying degrees of reliability and validity. Nonetheless, we do believe that a confirmatory factor analysis will be valuable in a later stage of the scale’s development.

In conclusion, the IP provides a comprehensive and useful measure of social support for drinking among substance abuse recovery populations. Overall, the ability to adapt this measure to the specific needs of one’s research is a strength; however, some reliable standardization of this measure needs to occur in order to achieve methodological rigor. This scale has great potential to be significantly improved through different scoring mechanisms, briefer sections, or other reconstructions based on this new and promising factor structure that possesses psychometric advantages over other conceptualizations of the measure.

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REFERENCES


Longabaugh, R. and Beattie, M. C. (1986) Social investment, environmental support and treatment outcomes of alcoholics. Alcohol Health and Research World 10 (Summer), 64–66.


