

**Recovery and Creative Practices in people with Severe Mental Illness: Evaluating Well-Being and Social Inclusion**

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**Implications for rehabilitation:**

- Creative practices can significantly improve social inclusions and well-being in people with severe mental illness.
- Participating in creative workshops help to elaborate personal meanings and promote recovery.
- Creative practices in mental health services can challenge professional roles and institutional practices.
- Participation of people with and without severe mental illness engaged together in artistic activities can decrease public stigma.

For Peer Review

## Recovery and Creative Practices in people with Severe Mental Illness: Evaluating Well-Being and Social Inclusion

**Purpose:** This mixed (quantitative-qualitative) study evaluates the impact of an artistic workshop on a group of people with severe mental illness. This study focuses on the impact of creative practices on well-being and social inclusion outcomes.

**Method:** After participating in a creative workshop, 31 people diagnosed with a severe mental illness completed pre/post-intervention measures, namely, the Warwick-Edinburgh Mental Well-Being Scale and the Social Inclusion questionnaire. It was applied in two-way repeated measures analysis of variance. The statistic Wilcoxon and Kruskal-Wallis were applied for non-parametric data to measure pre/post-test effects and workshop experience effects respectively. In addition to quantitative measures, one observer participated in each workshop that ran in parallel in order to deepen and triangulate quantitative outcomes.

**Results:** The qualitative and quantitative results show that social inclusion improved in a significant way with an important size effect. Psychological wellbeing increased significantly with a low size effect.

**Conclusions:** In accordance with these results, creative practices with people diagnosed with severe mental illness are recommended. In order to increase the impact of these interventions, it is recommended to utilize public space away from clinical environments and to include people without severe mental illness in creative activities together with severe mental illness patients.

**Keywords:** Recovery; Creative Practices; Severe Mental Illness; Well-Being; Social Inclusion

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3 The appearance of the recovery model within the area of mental health has promoted the  
4 search of alternative interventions for people with severe mental illness and an abandonment  
5 of conventional clinical contexts and orthodox treatments in line with pharmacological  
6 symptom reduction, cognitive-behavioural or psychoanalytical interventions. The boundaries  
7 between non-clinical and clinical interventions are diffused, however, in our opinion the first  
8 one could be defined by three main characteristics. First, these interventions should not be  
9 necessarily directed by clinical staff (i.e., psychologist, psychiatrist, etc.). Second,  
10 interventions take place in normalized and non-clinical contexts (e.g., communitarian centres,  
11 schools, museums, public spaces, associations, etc.). Finally, people from the community  
12 without mental health problems, when appropriates, could participate in these activities.  
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25 The rationale for new and alternative interventions is based on three specific aspects  
26 of recovery that have been systematically ignored [1]. Firstly, people with severe mental  
27 illness (SMI) need to rebuild their identity, build a narrative about themselves that is  
28 acceptable and makes sense beyond the appearance of lack of symptoms. Second, they need  
29 to feel a sense of control of their own lives not only regarding symptoms and condition  
30 management, but also about other aspects of their life such as employment, housing and  
31 interpersonal relations. And third, there is an urge to normalise the day-to-day of people with  
32 SMI and avoid the constant referral to clinical contexts. In summary, the recovery journey is  
33 personal, non-transferable and involves transcending the pathological and promoting other  
34 variables such as psychological wellbeing, the construction of new meanings, social inclusion  
35 and civil rights.  
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49 Among other interventions, creative practices have been often put forward as  
50 therapeutic interventions for people with SMI [2]. Although creative practices involve a wide  
51 range of activities (e.g., writing, music, dance, painting, etc.), investigations have paid  
52 attention mainly to plastic arts like painting. For more than a century, and across many  
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3 disciplines, there has been an interest in assessing the impact of these creative practices as  
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5 treatments for people with SMI, however, this approach has been dominated by a strong  
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7 clinical perspective which has emphasised the psychopathological interpretation of the artistic  
8  
9 production including the resolution and expressions of psychological distress of the patient.  
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11 The predominance of art therapy as an intervention in the area of mental health is a sign of  
12  
13 this bias.  
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16 From a different perspective, many professionals have pointed out the psychosocial  
17  
18 benefits of creative practices. For example, Parkinson [3] showed a reduction of depression  
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20 and anxiety symptoms when patients engaged in artistic activities. In relation to SMI, a study  
21  
22 with patients from the National Health Services in the United Kingdom that had participated  
23  
24 in creative workshops, reported that all participants experienced improvements on their  
25  
26 concentration levels, motivation and connection to others [4]. These authors presented  
27  
28 empirical evidence regarding the benefits experienced on psychological wellbeing,  
29  
30 empowerment and social connection among the study participants. Recently, it has been  
31  
32 conducted a systematic review of the literature, from 2011 till 2014, to assess the effects of  
33  
34 creative practices within clinical contexts [5]. The authors concluded that most of the studies  
35  
36 reviewed showed a significant improvement on wellbeing and satisfaction, and a reduction on  
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38 anxiety levels.  
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43 There is also evidence showing that engaging and participating in creative and artistic  
44  
45 practices can reduce the stigma associated with mental illness. Visitors of an art exhibition  
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47 that displayed artwork created by people experiencing mental distress demonstrated better  
48  
49 understanding of mental illness, empathy towards people suffering from mental illness and  
50  
51 acknowledged and valued the artistic skills and talent among the artists [6]. Their observation  
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53 reflects the positive effects that creative practices have, not only on the patients, but also on  
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55 the healthcare professionals and general population. In this line, it has been proposed the  
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3 concept of ‘mutual recovery’ as potentially valuable [7]. In contrast with traditionally  
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5 recovery-based interventions, which tend to focus almost exclusively on treating service  
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7 users, mutual recovery involves a reciprocal relationship amongst several agents: Service  
8  
9 users, residents, professionals, clinicians, and everyone else involved in creative practices.  
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11 Therefore, mutual recovery makes emphasis on cross-community recovery rather than  
12  
13 individuated interventions.  
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17 Other vulnerable groups, besides people with SMI, have also shown significant  
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19 benefits when engaging with creative practices. In Australia, the effects of three different  
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21 community interventions that included drama, music, circus skills among other techniques  
22  
23 with vulnerable population such as women in prisons was assessed [8]. This mixed methods  
24  
25 study showed that even though the interventions were not designed to improve mental health  
26  
27 outcomes, participants experienced an improvement in their confidence, self-efficacy,  
28  
29 autonomy and connection with their community after treatment intervention.  
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32  
33 Even though there is cumulative evidence regarding the psychological benefits of  
34  
35 creative practices experienced by vulnerable groups, the quality of the studies and the  
36  
37 measures employed to assess such benefits is poor and lack scientific rigor [8 - 10]. Other  
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39 criticisms have pointed out the excessive reliance on anecdotic evidence, the lack of  
40  
41 longitudinal studies and lack of attention to the processes involved.  
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44 This repeated measures study intends to overcome these methodological shortfalls by  
45  
46 assessing social inclusion and wellbeing outcomes among a group of people with a SMI that  
47  
48 enrolled on series of activities and workshops that took place within a museum of  
49  
50 contemporary art. This study focuses on further understanding the underlying creative  
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52 processes, as well as participatory effects, that took place among study participants. Special  
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54 emphasis was also given to the changes experienced by the keyworkers and other naïve  
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3 observers that were accompanying the study participants to contrast their predefined ideas  
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5 and believes associated to people with SMI before and after the creative practice intervention.  
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## 7 **Methods**

### 8 *Study Participants and Context*

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12 This study shows the assessment of one of the workshops that have been taking place  
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14 at the Contemporary Art Center of Andalusia, Seville (Spain) for people with SMI since  
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16 2006. After two years of running this initiative a formal agreement between the Andalusian  
17  
18 Public Health Service (SAS), the Andalusian Foundation for the Social Integration of People  
19  
20 with Mental Health Disorders and the Contemporary Art Center was put in place to ensure  
21  
22 commitment and sustainability.  
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26 The structure of these workshops, except minor changes, has remained the same since  
27  
28 2006. The workshops run three times a year and have a duration of 18hrs spread across six  
29  
30 days (3hrs/day). Four workshops run in parallel and each one is attended by approximately 15  
31  
32 service users. The workshops are also attended by an art facilitator and one or two  
33  
34 keyworkers per institution involved in this project, including therapeutic communities,  
35  
36 hospitals, mental health rehabilitation units, semi-independent housing and relevant  
37  
38 associations.  
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42 Each workshop has two phases, the first one consists on a group visit to the  
43  
44 contemporary art exhibition currently taking place at the art center. During these visits  
45  
46 participants are encouraged to reflect and discuss the artwork, its meaning and possible  
47  
48 interpretations. The second phase focuses on developing pieces of art, individually or as part  
49  
50 of group, following the themes that have emerged during the previous discussions with  
51  
52 assistance from the art facilitator. Although the types of creative technics employed in  
53  
54 workshops was diverse, most of creative practices used were related to visual arts such as  
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56 drawing, painting, sculpture, printmaking, collage, etc. The data presented in this study  
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3 belongs to the workshop which ran from March, to May of 2015 and was based on the  
4 artwork by contemporary artist “Maria Thereza Alves: El largo camino a Xico (1991-2014)”.

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7 In total we gathered data from four workshops run in parallel that included 31 service  
8 users that had a diagnosis of SMI compatible with the international criteria for severe and  
9 persistent mental illness [11]. The most common diagnosis included schizophrenia followed  
10 by bipolar and personality disorder. All participants were classified as having a long-term and  
11 high degree of dysfunctionality. This sample included ten female and 21 male with and mean  
12 age of 44.78 (sd. 11.42). Their educational background included 35.5% of participants not  
13 achieve any education degree or only completing primary school, 16.1% surpassed the  
14 compulsory stage of secondary education, 38,7% achieved high school diploma and 9.7%  
15 obtained a university degree.  
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### 30 *Ethical Approval*

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32 A meeting including the first author, professionals and representatives of public  
33 mental health services and Museum’s management was held. This committee was informed  
34 about the research project and approved the research protocol and the content of the  
35 interviews in accordance with ethical requirements. All participants were informed about the  
36 study, the voluntary nature of their participation, and the possibility of withdrawing at any  
37 point. Then, verbal and written informed consent was obtained from each participant.  
38 Participants’ rights to privacy and confidentiality were protected at all times. Unique  
39 identification numbers were used to link pre and post measures.  
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### 52 *Design and Procedure*

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54 This is a mixed method design that included quantitative measures such as the  
55 Spanish translation of the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) [12]  
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3 and the Social Inclusion Questionnaire [4]. These questionnaires were first completed before  
4  
5 the workshop and again six weeks after its completion.  
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8 While some of the service users were new to the workshops, others had participated in  
9  
10 several workshops. To control for this variable 'previous experienced' was defined as 'no  
11  
12 experience' (no previous experience at all), 'some experience' (previous participation in 2-10  
13  
14 workshops) and 'highly experienced' (> 10 workshops attended). For parametric data we  
15  
16 applied two-way repeated measures analysis of variance (ANOVA) (pre/post-test data x  
17  
18 workshop experience) and for non-parametric data the statistic Wilcoxon and Kruskal-  
19  
20 Wallies were applied to measure pre/post-test effects and workshop experience effects  
21  
22 respectively. Size effects were calculated with ETA-square ( $\eta^2$ ).  
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25  
26 The qualitative dimension of this study was evaluated by a participant-observant  
27  
28 allocated to each group ( $n=4$ ). The participant-observer was a psychology undergraduate  
29  
30 student without previous experience in mental health that was trained to keep a diary and take  
31  
32 notes, when relevant, to document the following questions: 'What types of activities are  
33  
34 being developed within the workshops? What is the workshop structure/organisation? Is there  
35  
36 a sequence or a predictable pattern of events? What are the participation rates and  
37  
38 involvement of both service users and keyworkers? Can you identify significant contributions  
39  
40 from both service users and keyworkers? What psychological processes may be taking place  
41  
42 while engaging in the workshop activities? Do you think the workshop participants are  
43  
44 enjoying the activities? Can you identify any behavioural change among participants?  
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46 Describe your impressions and feelings while observing the workshops'.  
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50 The participant-observers lack of experience and naivety in relation to SMI and the  
51  
52 recovery model could contribute to a reduction in social desirability effects in proxy subjects  
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54 when completing a diary and experimental notes. The same participant-observers were  
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56 responsible to complete the pre/post-intervention questionnaires. All participant-observers  
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3 were interviewed once the workshop was completed. Interviews were audio recorded,  
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5 transcribed and analysed.  
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8 According to Braun & Clarke [13], thematic analysis was used to “identify and report  
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10 patterns (categories) within data”. All categories should be based on several observers-  
11  
12 participants’ utterances. Only final categories which become visible in all observers and  
13  
14 confirmed by all researcher are reported in the result and discussion sections. The main  
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16 author carried out the first analysis of transcriptions. Finally, the other three authors, who  
17  
18 were independent to the running and execution of the workshops, audited analysis as an  
19  
20 expert checking team. In the discussion section the results from the thematic analysis were  
21  
22 interpreted taking into consideration the results derived from the questionnaires. Considering  
23  
24 this last aim, some extracts from interviews will be presented in the discussion section. In  
25  
26 qualitative researches the differentiation between result and discussion section is more  
27  
28 blurred and sometimes extracts can be offered in the discussion in order to show it in the  
29  
30 complex conceptual context [14]. This triangulation approach across data collection methods  
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32 helps to facilitate the validation of data through cross verification from more than two sources  
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34 [15].  
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#### 40 *Questionnaires*

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43 The WEMWBS is a questionnaire with 14 items and a Likert scale (1 to 5) designed  
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45 and validated to assess well-being taking into consideration both hedonic (e.g., happiness) as  
46  
47 well as eudaimonic (e.g., meaning and values). Psychometric data indicates that the  
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49 WEMWBS has a good internal consistency of 0.97 and responds well as a one-factor model.  
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51 We applied the validated Spanish version [16]. According these authors the Spanish version  
52  
53 of the WEMWBS correlates negatively with the negative subscale (i.e., nervous, distressed,  
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55 afraid, jittery, irritable, upset, scared, ashamed, guilty, hostile) of the Positive and Negative  
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3 Affect Schedules (PANAS-NAS) which measures positive and negative affective status  
4 separately ( $r_s = 0.59, p < 0.001$ ) [17]. We found the WEMWBS was highly reliable (Cronbach  
5  $\alpha = 0.9$ ).  
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9  
10 The Social Inclusion questionnaire [4] has 19 items and it has been specifically  
11 designed to assess creative intervention (i.e., improvements on social inclusion) among  
12 people with mental health issues. A shorter version (12 items) was applied to ensure all items  
13 were relevant to both keyworkers and service users eliminating those items that made  
14 reference to only mental health service users. This Likert scale questionnaire (1 to 4) has  
15 three main factors: Social Isolation (e.g., I have felt that I am playing a useful part in society),  
16 Social Relationships (e.g., I have felt what I do is valued by others), and Social Acceptability  
17 (e.g., I have felt accepted by my family). Higher scores indicate a positive social inclusion.  
18 Reliability has been tested indicating an internal consistency of  $\alpha = 0.71$  among the three  
19 factors. Internal consistency for this study was slightly lower: Social Isolation  $\alpha = 0.54$ ,  
20 Social Relationship  $\alpha = 0.71$  and Social Acceptability  $\alpha = .65$ . Because there is no published  
21 Spanish translation, a researcher translated the Social Inclusion questionnaire to Spanish and  
22 the second author independently translated it to English to maximise the accuracy of the  
23 translation.  
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## 40 **Quantitative Results**

### 41 *Psychological Wellbeing*

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43 Box's  $M$  test showed that variables followed a normal distribution and the variance-  
44 covariance matrices were equal across the cells formed by the between-subjects effect.  
45 Repeated measures ANOVA (see Table 1) showed a significant increase of psychological  
46 well-being after workshop participation though the effect is not large. No differences were  
47 found between-subjects (see Table 2) when looking at previous workshop experience (see  
48 Figure 1).  
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3 [Insert Table 1]  
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6 [Insert Table 2]  
7

8 [Insert Figure 1]  
9  
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### 11 *Social Isolation*

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13 Data regarding social isolation did not follow a normal distribution and therefore a non-  
14 parametric statistic was used instead to measure pre/post-test differences (i.e., Wilcoxon test)  
15 and previous experience between-subjects (i.e., Kruskal-Wallis test). Results showed no main  
16 differences between pre/post-test scorings or between participants with more or less previous  
17 experience attending the workshops. Figure 2, however, depicts a lower score for post-test  
18 among those participants categorised as having medium and high amounts of previous  
19 workshop experience.  
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29 [Insert Figure 2]  
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### 32 *Social Relationships*

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34 No differences between pre/post-test scorings were found for the participants with higher  
35 levels of previous workshop experience. This group, however, showed significant higher  
36 scorings both for pre/post-test when compared with participants with low or medium levels of  
37 experience. Figure 3 illustrate an increase of social relationship for only low and medium  
38 previous experience groups. Repeated measures ANOVA revealed significant effects for  
39 pre/post-test scorings and also between groups, size effects were low and medium  
40 respectively (see Table 1 and 2).  
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49 [Insert Figure 3]  
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### 51 *Social Acceptance*

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3 Figure 4 indicates significant higher post-test scores for all groups independently of their  
4 previous experience with a large size effect. No differences were found between-subjects  
5 when looking at previous workshop experience.  
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8  
9 [Insert Figure 4]  
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### 11 **Qualitative Results**

12  
13 Students participating in workshops offered a large number of themes and reflections on what  
14 they had observed during their participation and interactions with users. Many of these ideas  
15 were recurrently among different interviews. We selected “themes” which were directly  
16 related to the results provided by the questionnaires “Psychological well-being” and “Social  
17 inclusion”. Elements involving social interactions, the importance of horizontal structure and  
18 close relations, and the wealth of new learning experienced by the participants were specially  
19 highlighted. Thus, in addition, we found a very interesting thematic related to the process of  
20 constructing new meanings and accounts of “flow” states during the creative work. Next, we  
21 will describe briefly these categories and in the discussion section we will show some  
22 extracts.  
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38 *Horizontal structure and close relations.* Observers referred and emphasized the horizontal  
39 nature of the relationships established between participants, professionals and the artistic  
40 mediator during the workshops. They also highlighted the value of the new relationships that  
41 were promoted in these workshops.  
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47 *Wealth of new learning.* Observers have noted the variety and depth of the various learning  
48 processes developed during the workshops. Especially, training in communication skills,  
49 turn-taking, listening, etc.  
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3 *Constructing new meanings.* Expressing emotions and share personal experiences in a group,  
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5 as part of a creative experience, may help users to generate alternative meanings through  
6  
7 which to interpret their own experience.  
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10 *Flow mind and release states.* According to the observations during the workshops, artistic  
11  
12 activities may promote mental states of flow and may help to release the mind of ruminations  
13  
14 and obsessive thoughts.  
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## 17 18 19 **Discussion**

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21 Next, we will focus on the quantitative data taking into consideration the information  
22  
23 captured by the participant-observers. Then, we will discuss the psychometric characteristics  
24  
25 of the questionnaires and some limitation of the research. Finally, the benefits of this type of  
26  
27 creative practices to promote mutual recovery will be discussed together with some final  
28  
29 recommendations for maximising the efficacy of creative practices in the context of mental  
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31 health.  
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34  
35 This study shows that creative practices have the potential to improve social  
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37 competences, the quality of social interactions and the perception of social acceptability  
38  
39 among people with SMI as a consequence of their participation in creative workshops. This  
40  
41 result is similar to previous studies conducted in comparable contexts [4 - 5]. The cost-  
42  
43 effectiveness of this type of creative interventions is also important, especially when taking  
44  
45 into consideration that the significant increments in Social Acceptance and Social  
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47 Relationships as it was possible to see in quantitative results, even though the activity only  
48  
49 lasted 18hrs spread across a month and a half. According to the observers, most of the  
50  
51 changes are described in relation to users' self-esteem and social interactions as illustrated  
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53 below.  
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56  
57 *Extract 1.*  
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3 **O1 (Observer 1):** [...] finding people paying attention (to users) is an improvement. They  
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5 feel free and their social interactions improve as well as their wellbeing and self-esteem.  
6  
7 Especially their self-esteem, because inevitably, if you draw a picture and people value and  
8  
9 praise you and say how beautiful it looks, consequently that challenges you next week to do it  
10  
11 better. That is the benefit that I have noticed.  
12

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14  
15 The participant-observers also coincide when describing a complex context and a  
16  
17 horizontal structure in which participants are allowed to express and developed emotions both  
18  
19 verbally and by creating artwork in a non-judgemental environment. This context influences  
20  
21 positively work dynamics, facilitates social interactions and can provide new communicative  
22  
23 skills to users. As the reader may appreciate in the selected extract below, the participant-  
24  
25 observer reflects on the personal experience while *constructing new meanings* around  
26  
27 recovery [18].  
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30  
31 *Extract 2*

32  
33 **O2:** ... I think it is especially relevant that [service users] were able to synthesise all their  
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35 worries, all their fears, everything in something positive. Because usually they speak about  
36  
37 what concerns them, about their problems... For example, a service user that had children  
38  
39 was worried about them but instead she wrote a wonderful poem. She was describing her  
40  
41 worries as a mom and as soon as these thoughts were expressed in a poem or a drawing or  
42  
43 whatever, her worries turned into something positive, something productive. And this also  
44  
45 makes them feel more accepted, this also influenced by that sense of horizontality. This [the  
46  
47 artwork] is not better than this one, it is worth it by itself full stop. And that is also something I  
48  
49 really enjoyed, a way to give sense to their experiences.  
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53 Another participant-observer (see below) pointed out the richness of the learning  
54  
55 process that the participants enjoyed while taking part in the creative workshops. Some  
56  
57 service users pointed out the influence that some of the temporal exhibitions, in which the  
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workshops were based on, had in their lives. This learning process is usually not explicitly described or explored in researches. However, without undermining the importance of other outcomes, the most obvious positive outcomes derived from participating in this type of creative workshops is an increase on artistic knowledge/skills and also personal development.

*Extract 3*

**O2:** [...] one of the service users told me that she was attending the workshops since it started because the activity was very fulfilling and that many artists had helped [the service user] to make decisions in life because all she had learnt. Access to information was also important, one service user mentioned that he loved the workshops because it was a way for him to find out information that otherwise he couldn't not access, which is a sensation many of us have had. To be with others, to meet new people, and mostly the heterogeneity of the groups, with so many pathologies, and also the respect between participants is important, you know? They are very different, but this is not a problem...

The participation in this enriched scenery which provided new meanings to users can help to increase their social network, "new friends", but also, what is most important, to redefine old relationships. This is being supported by the large impact size of variable 'Social Acceptation'.

The effect of the creative practices on health measures is well reported [19]. For example, Pennebaker [20] demonstrated the effects of expressive writings on blood pressure and stress hormones among students. Within the current study, we go beyond the biological variables, as measured according to the Warwick-Edinburgh Mental Well-Being Scale, by also focusing on the capacity to deal with stressful situations and to build positive relationships with others. The current study shows a significant increment, though effect size is small, on the mental wellbeing experienced after participating in an artistic workshop held



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3 at the art center. It is worth to mention that this significant effect takes place only after 18hrs  
4  
5 of intervention.  
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7  
8 Some of the participant-observers pointed out, after conversing with other workshop  
9  
10 participants, the benefits perceived on the service users as well as on themselves (see extract  
11  
12 4). While engaging in creative practices, the service users were able to free their minds from  
13  
14 recurrent thoughts (i.e., rumination) and also mindfully focus on creative tasks, being able to  
15  
16 achieve a 'state of flow' with its associated benefits [21].  
17

18  
19 *Extract 4.*

20  
21 **O4:** While they (the service users) were painting, they would not think about anything else,  
22  
23 because they did not have anything distracting their minds. They were able to relax. They (the  
24  
25 service users) were looking forward Fridays to come back because they felt relaxed, listening  
26  
27 to the music while painting, and they say: 'I, while I am painting, I am not thinking in  
28  
29 anything else, then that is good. I am feeling good because I am not going on and on in my  
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31 head all they long'.  
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33  
34 With regard to psychological well-being, observers highlighted the benefits on the  
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36 service users' communication skills including a decrease in delusive speech while engaging  
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38 in the workshops due to the social interactions within the group of participants. In this sense,  
39  
40 some researchers have found that certain social interactions may promote a more coherent  
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42 discourse and a decrease of the delusional speech in patients with SMI [18; 22; 23].  
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44  
45 Anecdotic evidence from the keyworkers indicated a reduction of hospital admissions  
46  
47 as a result of workshop participation, however, when observers were asked about any health-  
48  
49 related changes among service users, responses were mixed. Our quantitative data shows that  
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51 differences in the amount of previous workshop experience at baseline could explain the  
52  
53 observed differences. For example, while participants with more experience scored higher at  
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55 pre/post-test measures when assessing Social Relationships, the most notable change was  
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57 observed in the medium level experienced group. It may be suggested that highly workshop-  
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3 experienced participants have reached a ceiling effect and, therefore, it is difficult to see  
4 significant improvement in this group. Benefit on their social relationships was perceived by  
5 the group with less or no experience, but it was not as remarkable as in the group with  
6 medium level of experience. In this case, it is possible to hypothesize that the less workshop-  
7 experienced group needs to accumulate more hours of workshops to increase the efficacy of  
8 the interventions.  
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16 Because the workshops include different activities, the question about which activity  
17 is influencing the results the most, cannot be elucidated by the present design. This is one of  
18 the most complex issues when conducting field research. However, thanks to the  
19 contributions of observers and to our analysis, it is possible to make some considerations  
20 about this issue. For example, during the initial phase in which participants visit and discuss  
21 the current artwork exhibited at the art center, verbal exchanges, emotional expression and  
22 communication skills' training are very important in this initial phase. However, in the  
23 second phase of artistic creation participants also discuss together, in most cases, individual  
24 artwork. According to observers, training of communication skills is essential for improving  
25 social interactions and the search for new meanings (extract 1 and 2). At the same time, with  
26 regard to the second phase, creative activities make the flow state and the mind releasing  
27 experienced by users possible (excerpt 4). In our opinion, one of the most relevant workshop  
28 design's aspects is the integration of activities which involves plastics and linguistics  
29 dimensions.  
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47 Study limitations include the absence of a control group (i.e., delayed treatment) or an  
48 active control to account for the location (e.g., same workshop run in a clinical setting) or the  
49 type of activity (e.g., non-creative activity run at the museum). Secondly, even though all  
50 participants had a formal SMI diagnosis, the degree and severity of the symptoms as  
51 moderator factors was not assessed when analysing the questionnaire data. Thirdly, it would  
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3 be convenient to track the users' progress over a longer period of time in order to clarify the  
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5 persistence over time of positive outcomes and the influence of the amount of experience in  
6  
7 previous workshops. Fourth, the changes observed in a self-rated questionnaire survey may  
8  
9 not reflect the change in behavioral attitude among the participants. However, observers offer  
10  
11 us a workshop process' landscape and provide useful information about the workshops'  
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13 impact on users and themselves. We remind that naïve observers do not have previous  
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15 information about recovery theories or models which can mediatize observations. We  
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17 considered especially relevant the efforts for triangulating qualitative and quantitative results.  
18  
19 Obviously, the observers' contributions cannot be generalized and should be considered with  
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21 precaution.  
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25 With regard to the instruments employed, even though the internal consistency for the  
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27 Social Inclusion questionnaire is acceptable, some authors [24] consider that its internal  
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29 consistency is within the lower acceptable interval and therefore it should be applied with  
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31 caution. Moreover, to our knowledge, this is the first time that the Social Inclusion  
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33 questionnaire [4] is applied to a Spanish sample without a priory psychometric validation. In  
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35 contrast, the Warwick-Edinburgh Mental Well-Being Scale shows a higher internal  
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37 consistency and reliability.  
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41 The evidence presented in this study, the low cost associated in running these  
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43 workshops and the lack of side or negative effects, supports the concept that creative  
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45 practices run in museums are beneficial to promote the wellbeing and social inclusion of  
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47 people with SMI, as well as their keyworkers and other healthcare professionals, and  
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49 therefore, facilitates opportunities for mutual recovery. According to our experience and the  
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51 data gathered using a mixed methods approach, we can recommend three suggestions  
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53 regarding the location to develop and deliver creative practices for wellbeing and social  
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55 relationships. Firstly, we highly recommend utilizing public spaces, such as museums far  
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3 from the clinical environments, to deliver the creative practices (e.g., artistic workshops and  
4 seminars) as it promotes positive social interactions. Second, undoubtedly, activity in the  
5 creative workshops at the museum not only empowers users, but at the same time it  
6 challenges institutions and organizations in order to improve interdisciplinary collaboration  
7 that according to some authors [25] need to be developed. And, finally, we suggest the  
8 participation of people with and without SMI engage together in these activities [6]. Our  
9 observers noted a radical change on negative associations and prejudice associated to people  
10 with SMI. This positive impact and greater awareness illustrate the benefits of creative  
11 practices as a mechanism for mutual recovery [7].  
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### 23 **Acknowledges**

24 This study is part of the project: 'Creative Practice as Mutual Recovery: Connecting  
25 Communities for Mental Health and Well-being' (AHRC grant ref. AH/K003364/1).  
26 We would like to thank to Contemporary Art Center of Andalusia, Andalusian  
27 Foundation for the Social Integration of People with Mental Health Disorders,  
28 Andalusian Public Health Service and all professionals that collaborate with us.  
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### 33 **Declaration of Interest**

34 The authors report no declarations of interest  
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**Table 1.** Differences pre-post test for the WEMWBS and The Social Inclusion questionnaires (ANOVA and Wilcoxon test).

Effect within groups	<i>n</i>	Pre-test Mean (Sd)	Pre-test Mean (Sd)	df	<i>F</i> and <i>z</i>	<i>p</i>	$\eta^2$	Mbox( <i>p</i> )
Psychological Well-being	30	3.55(0.82)	3.73(0.69)	1	<i>F</i> =7.78	0.038	0.150	10.594 ( <i>p</i> =0.153)
Social Isolation	31	3.3(0.50)	3.27(0.55)	1	<i>z</i> =-0.605	0.545		20.004 ( <i>p</i> =0.007)
Social Relation	31	3.09(0.79)	3.25(0.59)	1	<i>F</i> =5.054	0.033	0.153	12.200 ( <i>p</i> =0.097)
Social Aceptation	31	2.65(0.45)	3.33(0.54)	1	<i>F</i> =135.4	<.001	0.829	9.457 ( <i>p</i> =0.211)

For Peer Review



**Table 2.** Differences between groups of level of experience for the WEMWBS and The Social Inclusion questionnaires (ANOVA and Kruskal-Wallis test).

Effect between groups	<i>n</i>	Low experience Mean( <i>Sd</i> )	Medium Experience Mean ( <i>Sd</i> )	High Experience Mean ( <i>Sd</i> )	df	<i>F</i> and $\chi^2$	<i>p</i>	$\eta^2$
Psychological Well-being	30	3.62(0.64)	3.72(1.05)	3.61(0.61)	2	<i>F</i> =0.059	0.943	
Social Isolation	31	3.25 (0.44)	3.17 (0.64)	3.37 (0.45)	2	$\chi^2$ =1.470	0.480	
Social Relation	31	2.86(0.72)	2.9(0.75)	3.5(0.36)	2	<i>F</i> =4.350	0.023	0.237
Social Aceptation	31	2.86(0.5)	3.07(0.53)	3.02(0.41)	2	<i>F</i> =0.457	0.44	

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**List**

**Figure 1.** Differences in Psychological Well-Being between pre and post tests and groups of experience.

**Figure 2.** Differences in Social Isolation between pre and post tests and groups of experience.

**Figure 3.** Differences in Social Relations between pre and post tests and groups of experience.

**Figure 4.** Differences in Social Acceptance between pre and post tests and groups of experience.

For Peer Review

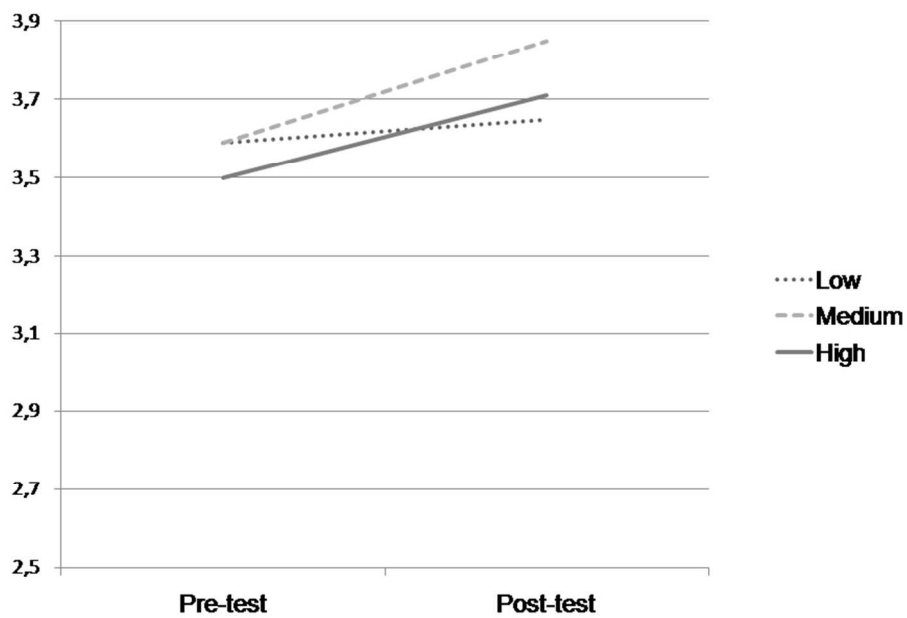


Figure 1. Differences in Psychological Well-Being between pre and post tests and groups of experience.

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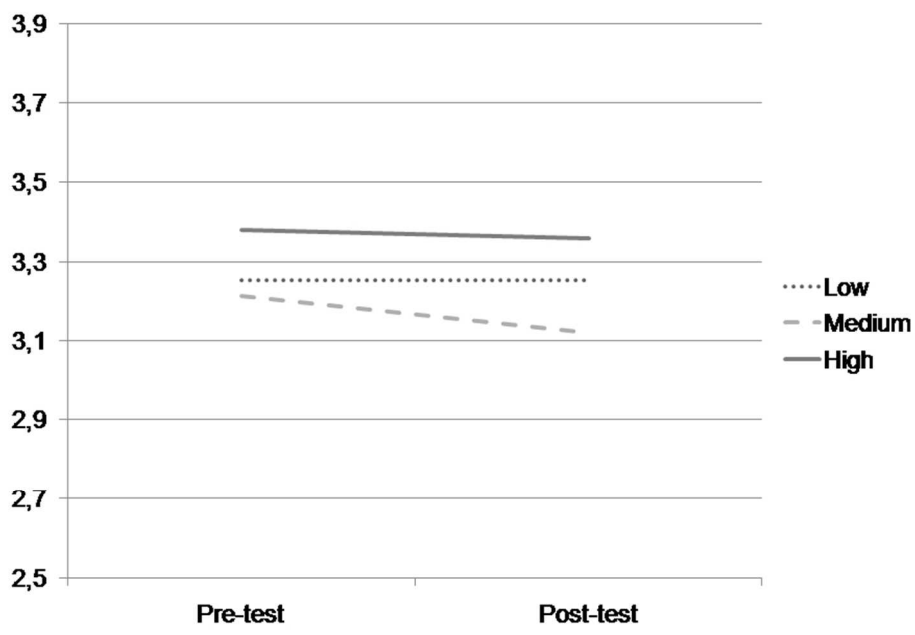


Figure 2. Differences in Social Isolation between pre and post tests and groups of experience.

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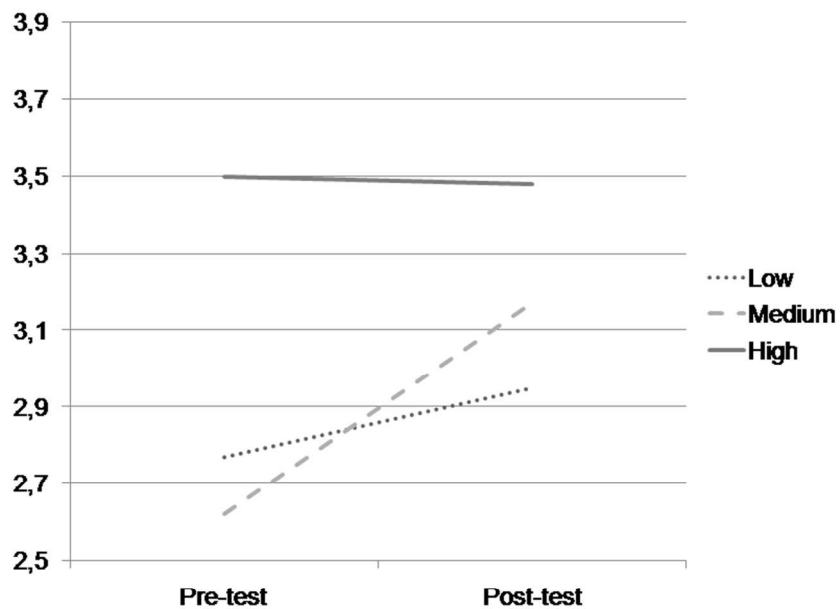


Figure 3. Differences in Social Relations between pre and post tests and groups of experience.

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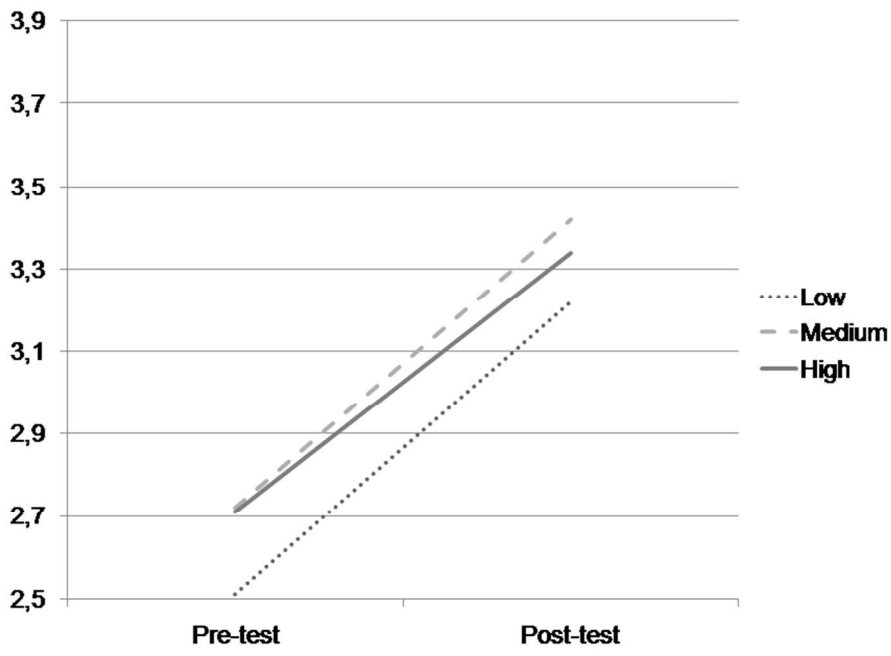


Figure 4. Differences in Social Acceptance between pre and post tests and groups of experience.

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