



## A Mixed Methods Exploration of 'Creativity in Mind,' an Online, Creativity-Based Intervention for Adults Experiencing Low Mood and Anxiety

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### Summary

- In autumn 2018, 64 Million Artists used co-creation practices to produce an online, creativity-based intervention aimed at improving mood and wellbeing.
- UCL Division of Psychology and Language Sciences researched the participants' experiences using a mixed methods research design.
- Individuals experiencing low mood and anxiety took part in 30 days of simple creative challenges, sharing their work and reflections in a facilitated WhatsApp group.
- The numerical data show a "clinically meaningful" increase in participants' wellbeing.
- Previous published evidence on face-to-face interventions involving art and creativity supports the positive findings from this research into an online intervention.
- Further research is needed to ensure the potential benefits of online creativity-based interventions are fully understood.

## What were the aims of the research?

More and more of us are experiencing low mood and anxiety. At 64 Million Artists, we co-produced Creativity in Mind (CIM), an online creativity-based intervention that aims to improve mood and wellbeing. We teamed up with the Division of Psychology and Language sciences at UCL to research CIM to try to understand more about what impact it has on people's mood and anxiety, and to also work out what parts of CIM were most and least useful.



## Who was involved?

64 Million Artists, 55 members of the public, and the UCL researchers: Dr Rachel H. Tribe, Dr Katrina Scior, Dr Kat Alcock and Dr Vyv Huddy.



## What is the background to the research?

In England, approximately 17% of adults meet the criteria for what are called common mental health disorders, which include depression and anxiety. Sadly, of these, only 39% are accessing treatment such as talking therapy (McManus, Bebbington, Jenkins, & Brugha, 2016). According to many published studies, creativity, defined as the generation of novel ideas or products, has the potential to improve one's mood and wellbeing (Cohen, 2009; Foregeard & Elstein, 2014).

**17% OF ADULTS IN ENGLAND  
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A number of UK government consultations and reports agree and have concluded that participation in art activities improves the wellbeing of individuals and communities (APPGAHW, 2017). Unfortunately, the social and creative benefits of participating in arts interventions are not available to everyone living in the UK. There are lots of reasons for this, such as cuts in third sector and local authority funding, accessibility or personal circumstances.

Digital spaces offer novel possibilities for increasing the accessibility of arts projects and treatment for poor mental health generally. CIM uses the internet to facilitate individual and group creativity, but unfortunately there is very little published evidence to support creativity as an approach to improving well-being using the internet.

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## What is Creativity in Mind?



CIM uses online creative support groups hosted on the smartphone app 'WhatsApp'. Closed WhatsApp groups are active for 30 days with a membership of about 10 to 20 people facilitated by a staff member from 64 Million Artists. Every day for 30 days, each participant receives a creativity-based challenge by email which they are asked to carry out, reflect on and share with the group. This engages 64 Million Artists' methodology 'Do, Think, Share' which they use across many of their projects. After the 30 days, the group members can continue without the facilitation from 64 Million Artists if they so wish.

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## What was the design?

The design of the research was thought about carefully with 64 Million Artists and in consultation with eight members of the public who had previously participated in arts based projects run by the company. The group discussed the proposed research methods, feasibility, and ethical considerations. Amendments were made to the research plan accordingly.

One recommendation was that the creative challenges should be co-created with those who would be likely to sign up for CIM. Workshops were therefore held in a London community centre in July 2018, two months prior to the start of the first round of CIM. In total, 20 people participated in the workshops, 6 of whom went on to participate in the WhatsApp groups. Three artists led a variety of activities to inspire and explore creativity with the attendees.

Ideas for creative challenges were then shared and reviewed by the group. A longlist was arrived at, organised under the following themes; *drawing and writing, connecting with others, food and drink, craft and making, learning a new skill, music and singing, movement, mindfulness and random*. From this list of challenges, 30 were used in CIM.

The research was a mixed methods design, meaning it was divided into two complementary halves. The first half consisted of collecting numerical data on the participants' mood (using a measure called the Depression, Anxiety and Stress Scale) and wellbeing (using a measure called the Warwick-Edinburgh Mental Wellbeing Scale). These data were collected at the start of CIM, at the end of CIM, and two months after that.

The second half involved interviewing 18 participants about their experiences of CIM. The researchers hoped that this would provide information about what elements of CIM were most and least useful, and how they contributed to the change (if they found any) in mood and wellbeing. The WhatsApp conversations were also analysed to see how many posts group members were making.

## Who were the participants?

In total, 55 participants (48 women and 7 men, between the ages of 23 to 73), signed up for CIM and completed the online consent form. There was no requirement to score above or below a certain cut-off on measures of low mood and wellbeing. Participants were placed into one of three CIM interventions, which commenced in September, October and November 2018. Following their participation in CIM, 18 participants were interviewed about their experiences.

**55 MEMBERS OF THE PUBLIC  
WITH LIVED EXPERIENCE  
TOOK PART**



## How were the results analysed?



The numerical data was analysed in a statistics programme using tests called t-tests and linear mixed models. The information gathered from the interviews was analysed using a method called Framework Analysis. Framework Analysis is a method of analysing qualitative data that involves going through each interview transcript carefully and ‘coding’ extracts of transcribed text. Coding means applying a label or a paraphrase to the meaning gleaned from parts of the text. Multiple researchers and 64 Million Artists were involved at this stage of analysis to ensure that important information and meaning was not missed.

The resulting ‘codes’ were interpreted, categorised and re-categorised whilst referring to the participant’s transcripts. This process resulted in themes and subthemes which tell a story about the patterns and commonalities in what participants said. The themes and subthemes were shown to eight of the respondents who gave feedback on whether they thought the themes made sense and reflected what they had said.

## Results from the numerical data

In total, 35 out of 55 participants filled in the mood and wellbeing measures at all three time points.

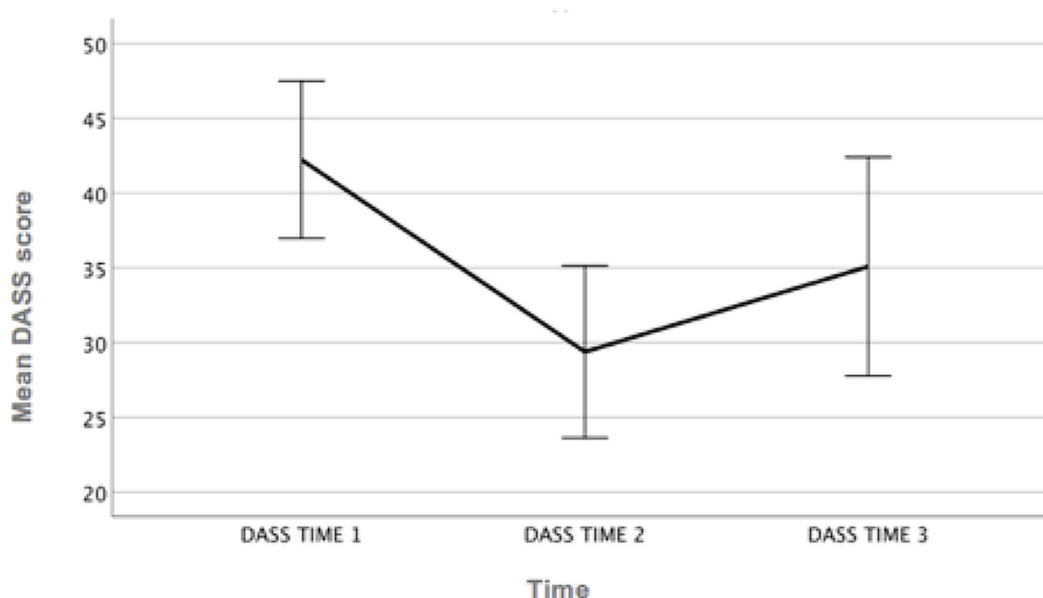


Figure 1. Line graph of the change in the scores from the measure of low mood, stress and anxiety across time.

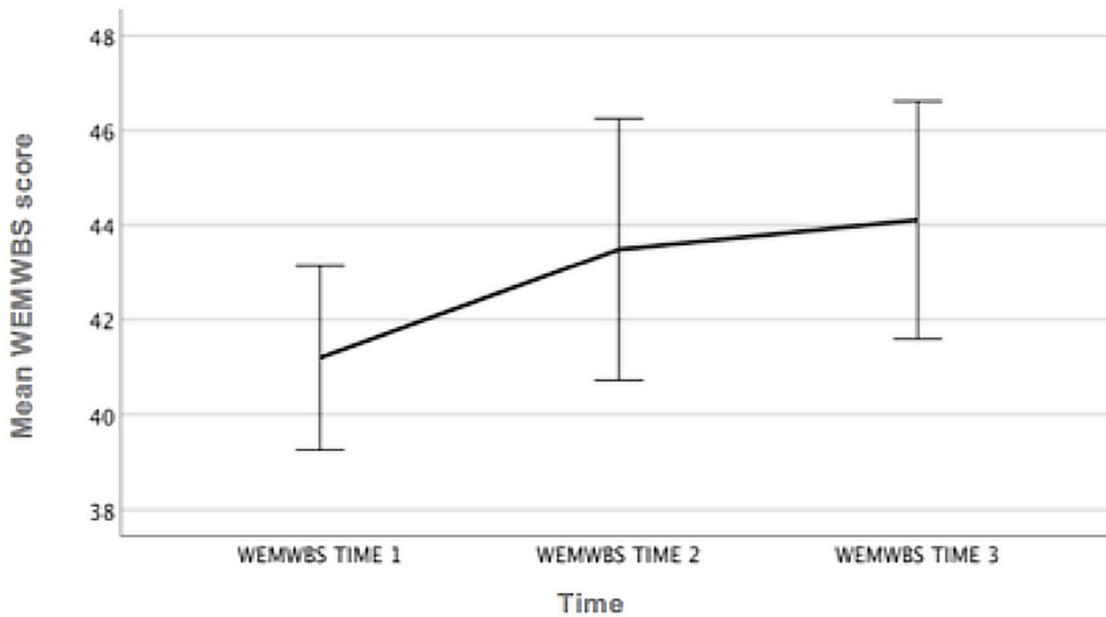


Figure 2. Line graph of the change in wellbeing scores across time.

The changes in both the mood and wellbeing scales were statistically significant from when they were measured at the beginning in comparison to the end of CIM, and from the beginning in comparison to the two-month follow-up. The improvement in wellbeing was described as ‘clinically meaningful’ because it changed by 3 points or more.

The number of posts from each participant in the WhatsApp group was recorded in order to better understand whether the frequency of their engagement in the group conversations played a role in the impact CIM had. A statistical test called a Spearman’s Correlation was performed and found that there was not a significant association between the number of posts in the WhatsApp group and how much participants improved.

## Results from the interview data



The interviews were transcribed into a total of 180 pages of double spaced, size 12 transcript. After analysis, it appeared that overall CIM was experienced positively, with some negative emotions arising from the volume of interactions and negative comparisons between participants. The identified themes were organised into the following domains; *CIM Impact* and *Mechanism of Change*.

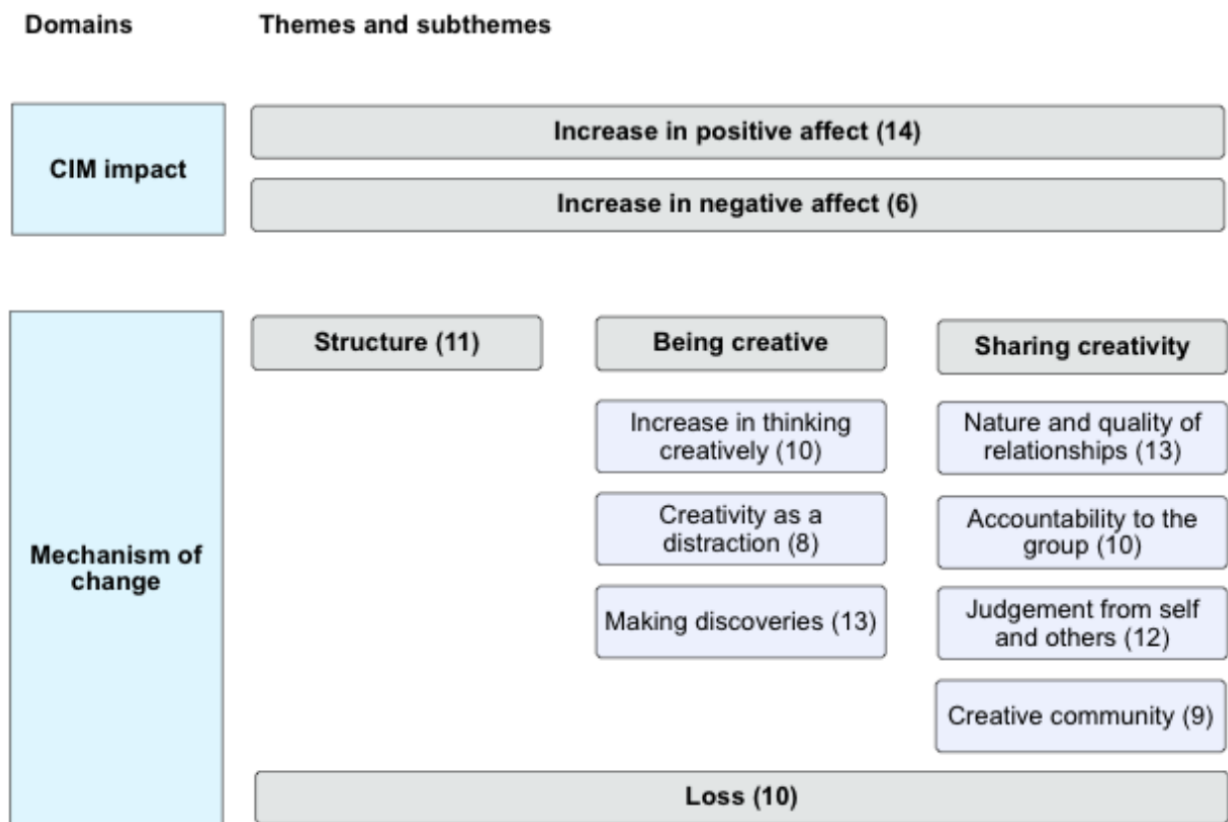


Figure 3. Domains, themes and subthemes (number of participants endorsing theme)

## CIM Impact

### Increase in positive and negative affect



"I would say it lifts you up throughout the whole of the day to be honest and then if you get a lot of comments back from people or I give comments to other people, you get a little thread going and that's quite nice." (Participant 5)

Overall, CIM was experienced and perceived by the majority of participants interviewed as very positive. This mirrors the overall trend gleaned from the participants' responses to the mood and wellbeing measures, both of which demonstrated significant improvement. Participants described having experienced enjoyment and a lift in mood as a result of their participation.

Nearly half of the participants reported a sense of achievement as a result of having produced something which they were proud of. On occasion they shared this with others both inside and outside of the group. Some of the negative affect experienced arose from self-criticism, anxiety and stress regarding what they created and how it compared to what others created.

The positives gained from learning about and traversing such personal barriers may have been a useful process for participants and contributed to the overall trend in improvements in mood and wellbeing scores. Four participants felt that CIM had no impact, “didn’t work” or was “strange”.

"I was amazed how kind of stressed I got with the fact that I hadn't done this thing and it was only me that was creating this stress, it was funny, it felt like way out of erm scale."  
*(Participant 6)*

## Mechanism of Change

The positive results, along with some of the more difficult experiences arising from participating in CIM, appeared to be a result of three elements of CIM contained in the following themes:

Structure of CIM  
in relation to its set  
up, delivery and  
format

Being creative by  
taking part in the  
daily creative  
challenge

Sharing creativity  
within the group,  
and also  
outside of the group

Below are some quotes from participants which fell under each theme and subtheme.

### 1. Structure of CIM

"I think part of the issue is thinking of something creative whereas if someone instructs you, this is your task for the day or whatever, it takes out the procrastination and the putting off." *(Participant 21)*

### 2. Being Creative

#### 2.1 Increase in thinking creatively

"I really absolutely can't draw it's really frustrating erm, but having an idea of what I would have liked to create is actually quite fun."  
*(Participant 12)*



## 2.2 Creativity as a distraction

"I remember the one where you wrote a note for a stranger to find, erm yeah it was good, for me that one helped me feel positive all day 'cos I just, every time my mind kind of wandered, or wanted to be frantic or whatever or anxious I would just think back to oh my god what is that person gunna' think when they find my message, so I really liked that." (*Participant 15*)

## 2.3 Making discoveries

"Somebody there had said something about she'd asked some colleagues for help because she hadn't known what to do and subtly I had probably taken that in, and thought oh yeah that's a good idea, what a novel idea! Asking for help! ... I think that's definitely sort of transformed me." (*Participant 3*)

# 3. Sharing Creatively

## 3.1 Nature and quality of relationships

"Everyone who I interacted with was really lovely there was a lot of encouraging language and lots of people, once you'd posted people would be like oh really happy to hear from you' or would say oh 'that's a great idea' or 'that looks really cool' which was really lovely and then it kind of like propelled you to do the same for other people." (*Participant 15*)

## 3.2 Accountability to the group

"I felt I'd let them down, or I'd not kept up my agreement, kind of thing, I just felt like I kind of, I didn't feel as connected after I fell behind." (*Participant 10*)

## 3.3 Judgement from self and others

"Like I said, you can see other people building those rapports, I did think 'oh [name of participant 9] what's wrong with you why can't you...?' (laughs) (*Participant 9*)

## 3.4 Creative community

"I thought I can't do this and I wasn't very well that day and it got to about 9 o'clock at night and I thought what am I going to do and I was anxious about it and I asked my daughter for help we had the best time." (*Participant 3*)



## Conclusion

Numerical and interview data collected from 55 participants was used to investigate the impact of CIM and to try to differentiate which elements of CIM might be contributing to the impact. Participants reported positive changes on measures of mood and wellbeing which suggest that CIM may lead to improvements in mood and wellbeing. The interview data suggested that the majority of participants enjoyed CIM, and that it gave them a sense of achievement.

Approximately one fifth of the interviewed participants found CIM to have no impact and for one third of participants, CIM created a sense of trepidation, self-criticism, and short periods of anxiety and low mood. These difficult experiences varied according to the creative challenge and level of group interaction and may have provided opportunities to learn about managing their reactions.

Taken as a whole, both the numerical and the interview data suggested that CIM may have a positive impact on wellbeing and mood. The impact observed in the numerical data cannot be attributed directly to CIM with certainty, as the research design did not include a control group for comparison. A control group would have helped to rule out alternative explanations for the change such as, chance or a natural improvement overtime. Previous published evidence on face-to-face interventions involving art and creativity supports the positive findings from the CIM research.

Future research is now warranted, and should include a control group and ways to determine whether an alternative pleasurable activity to creativity, repeated daily, may have a similar impact on participants. This would contribute to our understanding of whether the creativity expressed through CIM has a unique ability to alleviate low mood and anxiety, or whether engagement in a structured daily activity is key. Social contact also emerged as an important ingredient within CIM and therefore future evaluations should consider more carefully how to investigate the impact of social contact on participants.

The increasing use of technology means that mental health care solutions will be expected to expand beyond the usual clinic-based models of care, like talking therapy, in order to better suit the diverse needs and lifestyles of individuals. CIM is one such innovative solution and further research is needed to ensure its potential benefits are investigated further.



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