

## **Take a Dose of Art Once a Day: Why the arts are changing the way we understand health and mental wellbeing**

*Online Version at: [www.thecreativecatalyst.com.au/health-and-wellbeing](http://www.thecreativecatalyst.com.au/health-and-wellbeing)*

What do the arts have to do with our health? It's not a huge leap to associate a gallery visit with a stimulating, even relaxing, sensation. We see some great art pieces, usually in the company of friends and on the way out, a quick shop at the exhibition store for a memento, followed by a refreshing lunch or coffee. By any comparison this is a lovely social day out.

But is there more we can attribute to this enjoyable activity? Participating in the arts through dancing, drawing, painting, performing and more broadly craft making, are being understood as an essential part of our wellbeing and health.

The following is a curated article that documents the growing scientific research underway to quantify the mental and physical health benefits these art and craft based activities can provide, and why doing rather than just viewing, points to why we all need to take a dose of daily art.

### ***Part 1 is focussed on the value of craft based activities primarily for mental health and wellbeing***

#### **Knit one/Purl one- can we knit ourselves to a healthier life?**

Research is showing that yarn based craft activities like knitting have a direct and quantifiable benefit through their meditative action, activating brain areas that correspond, and even contribute, to a sense of calm and an improved emotional state. 1

Yarn crafts often incorporate mental challenges that assist to develop eye to hand coordination, fine motor dexterity and act to increase our attention spans. They also provide a space for mindfulness and, when undertaken in a group setting, can reinforce social connections.

For over a century, arts and crafts have been a core part of occupational therapy emerging after World War One in response to the post traumatic stress disorders experienced by returned soldiers. Crafts like knitting and basket weaving were offered to 'shell shocked' soldiers both as a diversion therapy to take their minds off their pain and associated negative thoughts, as well as skills development geared towards re-entering the civilian workforce. 2

Fast forward to modern day and it has been shown that repetitive actions undertaken with crafts like knitting, crocket, needlework, woodwork and ceramics, allow one to enter a 'flow state', first described by the famous psychologist Mihaly Csikszentmihalyi, as a perfect immersive state of balance between skill and challenge. 3

More studies are being undertaken on the role of craft in as a means for healing and recovery post a traumatic experience. A 2015 study examined the role of craft played in assisting Christchurch victims of the 2011 earthquake as part of their post-earthquake recovery. The emergence of a vibrant art and craft movement in the Christchurch region post the earthquake is part of a growing understanding of the value of community focused recovery responses.

The study findings illustrated the role crafting played in terms of processing key elements of the disaster for healing and recovery, creating opportunities for social support, giving to others, generating learning and meaning making and developing a vision for the future. 4

There has also been a spot light on the role of knitting and the significant psychological and social benefits that accrue from participation. A 2013 study from Cardiff University (UK) reported ‘in a survey of 3545 knitters worldwide, respondents who knitted for relaxation, stress relief and creativity also reported higher cognitive functioning, improved social contact and communication with others’. 5

Further it also reported they derived a sense of accomplishment; connection to tradition; increased happiness; reduced anxiety; enhanced confidence, as well as cognitive abilities (improved memory, concentration and ability to think through problems). 6

A previous 2009 study observed the benefits of introducing knitting into the lives of 38 female hospital patients admitted with anorexia nervosa. The subjects were asked to report on the effects knitting had on their psychological state with 74% reporting feeling ‘distracted’ or ‘distanced’ from these negative emotional and cognitive states, as well as more relaxed and comfortable. Over half said they felt less stressed, a feeling of accomplishment, and less likely to act on their ‘ruminating thoughts’. 7 This preliminary data suggests that knitting may benefit inpatients with eating disorders by reducing their anxious preoccupations about eating, weight loss and shape control. 8

Mindfulness and mind health issues such as dementia and depression are being further explored through the growing movement of knitting networks and ‘knit-ins’. Community engagement programs bring together hundreds of people across the country to learn to knit and crochet while listening to experts discuss brain and mind health.

## **BOX 9**

### **Knitting your way to a healthier happier mind**

Australian Neural Knitworks taps into the strong momentum behind the increased interest in crafts and its associated social and health benefits.

Started as part of National Science Week in 2014, they deliver workshops with guests talking about dementia care, mental health and neuroscience.

The pattern (oops! pun alert) is to engage participants by teaching them to knit or crochet in groups across community venues like libraries, galleries, schools, and community centres. During workshops they also hear from experts who discuss brain and mental health issues at a practical level with topics like nurturing adolescent brains, the effects on dementia, brain injury, depression and healthy brain ageing.

One such speaker was the former Sydney Roosters footballer, Ian Roberts who spoke at a Redfern Community Centre Knit-In about the impact of sustaining concussions throughout his football career. Other supporters include science and television commentators including Dr Karl K, Dr Charlie Toe, renowned brain surgeon and Todd Sampson.

The founders have extended the idea to link with the national annual Science Week where participants actually knit patterns that show what a neuron looks like as means to understand just how complex the human nervous system is.

The Neural Knitworks extends the reach of science by engaging participants with hands on educational experiences, connecting them with experts and practitioners, while they knit one-purl one. 10

For more on National Science Week 2019

**Box****Men's tinkering may well just be keeping them healthy**

Numerous studies of community spaces and, in particular Men's Sheds, are observing how these spaces are contributing to the lowering of depression in older men. Men's Sheds enable older men to socialise as they participate in a range of woodwork and other activities.

Findings from a 2015 study point to a decrease of self-reported symptoms of depression. This could be from the environment promoted through the 'sheds', with its sense of purpose, relationships created and enjoyment experienced by members as well as learning new skills and the overall social environment. The study went on to note the feelings of pride and achievement men felt from these activities and the associated self worth this provided. It concluded they provide an opportunity to promote health and wellbeing to retired men and recommended further research to measure their impact on depression. 11

Further studies have concluded Men's Shed have an important role to play in addressing gendered health disparity that males face. The shed's outward social focus can assist in supporting social and mental health needs and contributing to health related literacy. 12

***Footnote: What role does the collective nature of crafting play?***

One of the ongoing questions for consideration is the notion that the benefits noted arise as much from the social connections that craft gatherings enable. For those who are ill or may suffer from social anxiety or are just shy, the strength of these activities is also in the coming together, enabling individuals to decide to participate collectively or individually in the craft. Either way we recognise that being able to distract from an uncomfortable or stressful focus is the outcome valued through this approach.

**Creative Health: Promoting Creative and Innovative Approaches to Healthcare**

Consider the future where doctors, instead of a prescribing tablets, advise you to take up a new creative art and craft based activity to improve your mental and physical health.

This scenario is closer than you might think with numerous research findings pointing to the demonstrated impact of the arts and how, in this age of medication dependent healthcare and the associated rising costs of the healthcare system, we should be working towards an arts based health creating society.

The evidence presenting shows how arts based approaches can help people stay well, recover faster, manage their long term health conditions and overall experience a better quality of life.

In 2017-18, two reports from the UK pointed to the growing number of healthcare and government professionals calling for informed and open-minded studies and conversations to progress this approach.

The first found that 66 percent of UK doctors believe the arts have a positive role to play in the prevention of illness. 13

Alongside this survey was a report commissioned by the UK All Party Parliamentary Group for Arts, Health and Wellbeing that stated "the time has come to recognise the powerful contribution the arts can make to our health and wellbeing". 14

There is a growing recognition by GPs that the medical profession are under increased pressure to meet their patient's needs. GPs also know that people are living longer and in some cases socially isolated with less community support.

Social prescribing refers to situations where doctors prescribe activities in the community, in preference to prescribing medication. GPs would integrate these activities into their suite of healthcare offerings, referring patients to a link worker – someone familiar with the local community who could recommend social and recreational activities including therapeutic art, craft, music and dance to match their interests.

The British Secretary for Health believes the evidence is growing for more preventative approaches and in some cases social prescribing can be more effective than medicines. 15 “Access to the arts improves peoples mental and physical health. It makes us happier and healthier.” Matt Hancock 16

Matt Hancock went on to proclaim a diet of the arts for everyone. The arts “*are not just a right in their own terms as the search for truth and expression of the human condition. We shouldn't only value them for the role they play in bringing meaning and dignity to our lives. We should value the arts and social activities because they're essential to our health and wellbeing. And that's not me as a former Culture Secretary saying it. It's scientifically proven. Access to the arts and social activities improves people's mental and physical health.*” 17

Social prescribing strength can be seen as a complement to, rather than a replacement of, more traditional forms of treatment.

Interestingly, the UK approach is also linking social prescribing to another growing concern across our society- loneliness. In January 2018, UK appointed a Minister for Loneliness to explore and combat the “sad reality of modern life”. 18 Loneliness and the associated symptoms of anxiety, and stress are often dealt with in many instances through a medicalised approach.

A shift away from over prescribing towards a more preventative approach has enormous potential to deal with disease, but also these non-medical issues such as stress, isolation and loneliness.

## **BOX**

### **Survey of Health Professionals' Attitudes to the Role of the Arts in Social Prescribing**

A 2018 nationally representative survey of 1,002 GPs in the UK, revealed that two thirds (66%) of GPs agree that public engagement with the arts can make a significant contribution towards preventing ill health among the public.

Forty four percent also agree that arts-based interventions can be a cost-effective way to deliver primary care to the public and improve health outcomes. Almost two thirds (62%) agree that art-based interventions can make a significant contribution to improving the health and wellbeing of National Healthcare System (NHS) staff. 19

The Chair of the College of Medicine and former President of NHS Clinical Commissioners, Dr Michael Dixon, added, “This study is dramatic proof that most GPs recognise the potential of the arts to provide health benefits and healing for their patients. Its implications are clear – we need to make arts interventions much more available. The NHS needs to reach beyond its conventional medical box and now regard arts interventions as mainstream.” 20

### **Knit for Peace Survey: Confirms the health-giving qualities of knitting**

Both British and Canadian health systems are being urged to seriously consider the evidence accruing of the multiple benefits of craft based therapies.

The UK organisation Knit for Peace has carried out a widespread literature review looking at the health benefits of this traditional craft as well as a survey of over 1000 knitters in their network.

Their report points to the effectiveness of knitting (and crochet) in helping older people become more resilient, including improvements in mental and physical health, lowering blood pressure, distracting from pain, slowing the onset of dementia, overcoming isolation and loneliness and increasing a sense of well-being.

Results of the findings:

- Of those in poor or very poor health, 92% said knitting improved their health
- 82% said knitting relaxed them
- 65% said knitting for others made them feel useful
- 92% said knitting improved their mood
- 67% studied are over 60. Some are as old as 100 and many in their 80s and 90s.

Of particular note is that this network also donates their finished pieces to those in need – so they have someone to knit for beyond their immediate family. By sending the pieces to hospitals, women's refuges, refugee drop off centres and overseas to refugee camps, this act contributes to an increased sense of usefulness, self worth and inclusion in society, all assisting to decrease elderly knitters physical decline. 21

The report findings go onto urge the UK National Healthcare System NHS to take these results on board and consider more creative and innovative approaches to managing the growing costs of healthcare. Prescribing knitting could be a cheaper way to approach age related concerns especially when considering the costs to the health system with more than 2 billion pounds spent yearly on blood pressure treatments and 300 pounds on antidepressants, as well as the growing costs of dementia and chronic pain. 22

A study of people aged over 70 by the Mayo Clinic in the US, found that knitting was associated with decreased odds of experiencing mild-cognitive impairment, associated with the development Alzheimer's disease. The process of creation also boosts the reward centres of the brain and can help lower depression.

Further many former smokers have used knitting as a way to control their cravings to reach for cigarettes, by keeping their hands busy with the needles. 23

Knitting can no longer be dismissed as an old-fashioned pass time but rather has proven that its health-giving qualities should be seriously promoted.

## **BOX**

### **Stress reducing qualities of art making**

A small study has found a link between making art and the reduction of stress-related hormones in the body. This study investigated the impact of visual art making on the cortisol levels of 39 healthy adults. Cortisol is a biomarker, a biological indicator that can be used to measure conditions in the body such as stress. The higher a person's cortisol level, the more stressed a person is likely to be.

The participants, ranging in age from 18 to 59, were invited to participate in 45 minutes of art making. Cortisol levels were taken before and after the art-making period.

Materials available to the participants included markers and paper, modeling clay and collage materials. There were no directions given and every participant could use any of the materials they chose to create any work of art they desired. Of those who took part in the study, just under half reported that they had limited experience in making art.

Results indicated that art making resulted in statistically significant lowering of cortisol levels and hence the conclusion that a lowering of stress would result from art making. Participants' written responses indicated that they found the art-making session to be relaxing, enjoyable, helpful for learning about new aspects of self. 24

### *Part 2 focuses on the creative expression forms of music, dance, visual arts and writing*

#### **Engaging, Moving and Expressing = Creative Art Healing**

While part 1 focussed on the value of craft based activities primarily for mental health and wellbeing, part 2 will focus on the physical and mental well being benefits gained from expressive writing, music and movement based creative expression.

Some visual, literacy and performance arts based organisations working in the health and wellbeing space see themselves as bridges builders. This is largely due to the intuitive understanding that creativity is good for us and can make us happy. But until recently we have lacked the studies to measure these benefits.

Over the last decade more research is demonstrating these benefits and health psychologists have begun to recognise how the arts might be used to assist in emotional injuries, as well as self reflection approaches to alter behaviours and thinking patterns. 25

A 2010 study of the connection between art, healing, and public health assessed more than 100 studies in an effort to determine the creative therapies most often employed. Four primary therapies emerged: music engagement, visual arts therapy, movement-based creative expression and expressive writing.

The researchers were specifically interested in the intentional use of these arts modalities and creative processes to foster health and wellbeing outcomes.

The study noted the context of modern society where we're seeking more effective ways to create shared meaning and meaningfulness. This has been recognised as a fundamental driving force in artistic creation. Similarly the expansion of individual and community health-enhancing efforts and an acceptance of the definition of health as being more than the absence of illness, are encouraging further support into holistic approaches to sustaining health. 26

In summary the research noted that in all 4 areas of creative artistic expression, there are clear indications that artistic engagement has significant positive effects on health:

- Music engagement can decrease anxiety and calm neural activity
- Visual arts therapy can be a refuge from the intense emotions associated with illness
- Movement-based creative expression can relieve stress
- Expressive writing can help one to process life events and can positively impact mental health. 27

#### **Writing as a healing tool**

A number of studies have also found that writing that requires participants to narrate an event

and explain how it affected them, can help people to overcome trauma and manage negative emotions. Expressive writing, in particular, allows people to take negative situations such as a medical diagnosis, a loved one's death, or a violent experience and integrate them into their life's story, creating a meaning for these events. These were found to result in improvements in both physical and psychological health. 28

In one study of expressive writing, participants wrote for 15 minutes on 4 consecutive days about 'the most traumatic or upsetting experiences' and were encouraged to write about their deepest thoughts and feelings. They reported significant benefits in both objectively assessed and self-reported physical health four months later, with less frequent visits to the health centre.

While immediately after writing down one's experiences, the writer might feel an increase in negative emotions as they recall bad incidents. However, over the longer term the study found evidence of health benefits in both self reported physical and emotional health outcomes. These longer term health benefits included fewer stress-related visits to the doctor, improved immune system functioning and reduced blood pressure as well as social and behavioural outcomes including reduced work absenteeism, improved memory and higher student grade average.

The authors concluded that expressive writing can be used as a therapeutic tool for survivors of trauma and in psychiatric settings. 29

Further studies on expressive writing about positive experiences with a focus on creating their 'future best self' was also associated with an increased sense of psychological well-being. Writing about life goals was significantly less upsetting than writing about trauma and was associated with a significant increase in subjective wellbeing. Of significance was that five months after writing participants still measured decreased illness. The study concluded that writing about self-regulatory topics can be associated with the same health benefits as writing about trauma. 30

A further randomised trial of patients undergoing HIV treatment who wrote about their experiences on a regular basis also exhibited a boost in their immune systems. This was based on measuring their CD4+ lymphocyte count, crucial to the functioning of the immune system.

Their conclusion was that the results suggest that emotional writing may provide benefit for patients with HIV infection. 31

### **Movement and dance as a means to health and wellbeing**

Similarly to the advantages of writing, researchers are studying the health impacts of creative movement through dance. It has long been understood that dance is an enjoyable way to be more physically active and stay fit.

Studies have demonstrated that exercise or aerobic activities such as Zumba can improve blood pressure and triglyceride levels all contributing to better weight management. 32

There are also numerous studies associated with physical exercise interventions as a means to assist the balance of older people and reduce the risk of falling. 33

Dance for Health programs in the UK targeted at older people were evaluated by the London School of Economics that found that "Dance to Health is capable of generating better outcomes and is more cost effective compared to PSI/FaME [health sector falls provision] or

no intervention. The participants have made dramatic progress with their strength and balance and don't want the programme to stop." 34

Science is beginning to look at the connections between dance and neuroplasticity. A 21-year study of senior citizens by the Albert Einstein College of Medicine in New York City looked at whether any physical or intellectual recreational activities influenced mental acuity.

Out of all the physical activities studied — tennis, golf, swimming, bicycling, dancing, walking and housework — only regular dance resulted in an increase in protection against dementia and was found to offer greater risk reduction than any cognitive practice such as crosswords. 35

## **BOX**

The 21-year study of senior citizens, 75 and older, was led by the Albert Einstein College of Medicine in New York City, funded by the National Institute on Aging, and published in the *New England Journal of Medicine*. Their method for objectively measuring mental acuity in aging was to monitor rates of dementia, including Alzheimer's disease.

The study wanted to see if any physical or cognitive recreational activities influenced mental acuity. They discovered which activities had a significant beneficial effect by studying cognitive activities such as reading books, writing for pleasure, doing crossword puzzles, playing cards and playing musical instruments. They also studied physical activities like playing tennis or golf, swimming, bicycling, dancing, walking for exercise and doing housework.

One of the surprises of the study was that while there can be cardiovascular benefits, almost none of the physical activities appeared to offer any protection against dementia.

There was one important exception: the only physical activity to offer protection against dementia was frequent dancing.

Dancing frequently - 76%. That was the greatest risk reduction of any activity studied, cognitive or physical

Reading - 35% reduced risk of dementia

Bicycling and swimming - 0%

Doing crossword puzzles at least four days a week - 47%

Playing golf - 0%

Further studies have indicated that we increase our mental capacity by exercising our cognitive processes. Dancing provides the opportunity to integrate several brain functions at once — kinesthetic, rational, musical, and emotional — further increasing neural connectivity.

It is also involves an activity that requires 'split-second rapid-fire decision making, as opposed to rote memory (retracing the same well-worn paths), or just working on your physical style.' This suggests that it's more about making lots of decisions in very short time than retracing the same memorized steps. 36

## **Final Statement**

The stimulus for this curated piece was my strong interest in the intersection of art, creativity and science.

My reading has been wide ranging and lead me to consider further the neurological benefits of art and craft based activities as they require both cognitive attention as well as eye to hand (or feet) coordination and increasing attention spans that take us into a flow state.

The research to date has demonstrated

- A long history of utilising crafts as a diversion therapy for returned soldiers to a modern day role of craft in assisting with post-earthquake recovery and the value of community focused recovery responses;
- The value of craft based activities such as knitting and woodwork for relaxation, stress relief, reduced anxiety and increasing creativity aligned with reported higher cognitive functioning, improved social contact and communication;
- The added benefits in overcoming trauma and managing negative emotions from creative artistic expression found with engagement in music, movement based and expressive writing;
- The momentum for social prescribing as a means to enhance and act as a complement to the healthcare system with preventative approaches to improve people's mental and physical health.

My hope is that by promoting the actual health and mental benefits of arts based experiential activities, this will lead to greater interest, funding and support for consistent longitudinal studies.

The more we understand the relationship between creative expression and our physical and mental wellbeing, the more we'll discover the healing power of the arts.

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