The Meeting of Eastern Paradigms of Health with Western Paradigms of Medicine. Could oxytocin provide a bridge for collaboration and integration?

This article has been contributed by Cathy Chapman who has been a practising Traditional Chinese Medical Acupuncture since graduating from Westminster University in 2003. She has worked for the NHS as an acupuncturist and massage therapist at St Bart's Hospital in London within the chronic pain team and cancer services respectively. Cathy is a former vice-chair of the British Acupuncture Council and former chair of their professional standards and regulatory committee. She now works in private practise in Lancaster, as well as working as a mentor and supervisor nationally.

I have always believed in the power of an integrative approach to well-being, so felt delighted to be asked to contribute to this special, oxytocin-based issue of the Morecambe Bay Medical Journal.

Acupuncture is an ancient system of medicine originating in China. Acupuncture, herbal medicine and adjunctive therapies such as moxibustion, cupping and gua shi are still used in hospitals across China in an integrated system alongside allopathic (western) medicine. Acupuncture is increasingly becoming a part of the health landscape in the United Kingdom (UK), with an estimated 4 million treatments given annually.[1] Traditional Chinese medical acupuncture (TCM) is a holistic system of medicine that involves the insertion of fine, disposable needles into defined acupuncture points on the body. Treatment also aims to identify aetiological diet and lifestyle factors and support patients in making different choices to aid a return to health and to prevent deterioration in their symptoms.

The traditional Chinese medical view of the body is a very different paradigm of understanding and can appear rather random and nonsensical in the light of eastern medicine's highly scientific view of the body. Stephen Barrett MD, refers to this ancient system of medicine as "new age hokum" in his article: Be wary of acupuncture, qigong and "Chinese Medicine".[2] Having read Dr Barrett's article, I have some sympathy with the information that has led him, from his perspective as a medical doctor, to reach these conclusions. Dr Barrett's article summarises several research studies in which individuals received acupuncture treatment from several different qualified acupuncturists.[3] Outcomes of these studies revealed that there were significant inconsistencies in Chinese medical diagnosis and point selections. These studies drew the conclusion that diagnostic and treatment inconsistencies provide evidence that acupuncture lacks robust processes, and that training and subsequent methods of practise are flawed. Interestingly, the studies did not reveal any details of the clinical outcomes of these treatments. From a western medical perspective, there simply cannot be more than one correct diagnosis and therefore, the conclusions of these studies are unquestionable, however, this is not the case from a Chinese medical perspective. Chinese medicine is known to be at least 2300 years old and in its long history, has evolved into a system which has integrated many approaches and perspectives, therefore there is not one correct diagnosis or indeed one correct acupuncture point prescription and the methods of diagnosis that are used mean that a person may present very differently from day to day or even hour to hour. Whilst each practitioner will have a logical and rigorous process in which they determine the correct treatment protocol through the tools of their specific modality, this process may differ dramatically from that of their colleagues. Treatment outcomes are seen as the main way to determine the efficacy of each approach and practitioners will alter their point selection in order to best support each individual's well-being. These fundamental differences in approach are definitely barriers to the integration and collaboration of Chinese and western medicine. It's interesting to note that in Britain, acupuncture treatment is primarily privately funded which provides a useful tool in ensuring that practitioners are offering high quality treatment with definable results, as those practitioners who are less successful in terms of clinical outcomes, will invariably fail to stay open as patients "vote with their feet" in order to seek out more concrete and definable outcomes. The lack of regulation for many complementary therapies including acupuncture, further muddies the waters in terms of assessing the efficacy of these therapies. The British Acupuncture Council requires the equivalent of degree level training for their members and has stringent safe practise and professional conduct guidelines as well as being independently accredited by the professional standards authority (PSA). There are also a number of other regulatory bodies with differing entry criteria. Under current UK law, no professional training is legally required in order to open a business practising acupuncture, which makes it essential that people seeking treatment access practitioners through recognised regulatory bodies.

Clear and effective research is a further barrier to the integration and understanding of Chinese medicine in the west. Double blind, randomised controlled trials remain the 'gold standard' for scientific research, but acupuncture research utilising this methodology produces confusing results. This is partially because of the lack of an effective sham acupuncture method, and also due to the extremely individualised diagnostic processes inherent in traditional acupuncture treatment. For example, research studies of acupuncture and lower back pain, may see patients in the treatment group receiving treatment with a pre-defined set of acupuncture points, regardless of differing symptomology, whilst those in the sham group might receive random needles in the lower back region. In reality, in clinical practice, patients presenting with lower back pain would be treated quite differently, depending on how the pain presented and their other signs and symptoms. Random needling into a painful area may well prove more efficacious than a

pre-determined set of acupuncture points which may lack relevance for each individual patient. Until a more qualitative, evidence-based method is widely applied to acupuncture research, we may continue to see inconsistent and misleading results. Further unquantifiable factors are the effect of the patient/practitioner relationship and the therapeutic effects for the patient of simply feeling 'heard' and receiving therapeutic touch. There is a gathering body of research that strongly suggests that therapeutic touch and therapeutic relationships may stimulate the production of oxytocin (OT), leading to increased feelings of well-being and improvement in diverse symptomology.[4] In all therapeutic encounters, it is difficult to quantify the effects for the patient of this mechanism. It is important to acknowledge that one of the great benefits of private practice is the ability to take time to build a therapeutic relationship. I strongly believe that this therapeutic relationship and resultant social bonding is one of the major benefits for patients in the UK accessing eastern medicine treatments.

Acupuncture has long been used as a supportive treatment for pregnant women both to induce labour and to help with the efficiency of labour. Oxytocin is known to be key in stimulating uterine contractions during labour and promoting the progress of labour.[5] A significant amount of research supports the role of acupuncture during pregnancy and labour. Research conducted within an NHS maternity acupuncture service demonstrated that women who received acupuncture for birth preparation had more normal births (less surgical intervention), less intrapartum analgesia, fewer interventions in the induction of labour and a significantly reduced hospital stay.[6] A study exploring the impact of pre-natal acupuncture on depression, stress and anxiety during pregnancy, found that there was substantial evidence to support the efficacy of acupuncture treatment, although it was noted that the small sample size and self-reported outcomes were limitations in assessing the overall efficacy of acupuncture treatment in this context.[7]

Moxibustion is an ancient Chinese medical treatment which has traditionally been used alongside acupuncture, in which a dried herb called mug wort is burned on or near the body. Research demonstrates the use of moxibustion on an acupuncture point on the lateral aspect of the little toe (BL-67) can turn up to 84.6% of breech babies after 34 weeks gestation.[8] A systematic review and meta-analysis of randomised controlled trials conducted into the efficacy of moxibustion for singular non-vertex (breech) presentation, found that there was significant evidence that moxibustion helped to correct presentation at delivery, with an attendant decrease in the use of synthetic oxytocin during labour.[9] All the above evidence would suggest that there is a link between acupuncture treatment and the production of oxytocin in pregnant women.

A study conducted in 2020[10] found that electro-acupuncture treatment on breastfeeding mothers, increased serum prolactin, infant weight-gain and maternal perception of milk production significantly more than treatment with domperidone alone. Additionally, numerous studies provide further evidence that acupuncture can stimulate the production of oxytocin by demonstrating the efficacy of acupuncture in benefitting women with a low post-partum milk supply.[11]

Two studies into the efficacy of Chinese herbal formulas: Guizhi fuling[12] and Cinnamomum cassia presl in the treatment of primary dysmenorrhoea[13] provide further evidence supporting the link between traditional Chinese medicine and oxytocin, although in this case the treatment was found to inhibit oxytocin receptor expression in uterine tissue. Both herbal medicines were found to have a significant spasmolytic effect on synthetic oxytocin-induced uterine tetanic contractions, leading the studies to conclude that these herbs warrant further investigation into their ability to treat dysmenorrhoea.

Acupuncture analgesia is a traditional Chinese method of reducing pain. A study conducted on rats demonstrated that by inserting needles into a specific acupuncture point and applying mild electrical stimulation, oxytocin concentrations in specific areas of the central nervous system were significantly elevated, providing a potential explanation for the efficacy of this treatment.[14]

In a review of the effect and mechanism of acupuncture on gastro-intestinal diseases[15] it was postulated that the insertion of acupuncture needles stimulates the somatic afferent nerves, thus transmitting somatic sensory information to the cortex. Somatic sensory fibres then project to the various nuclei, including the hypothalamus and paraventricular nucleus. Activation of these areas stimulates the production of oxytocin which mediates anti-stress and anti-nociceptive effects. Further effects of acupuncture include a balancing effect from stimulation of the brainstem on the sympathetic and parasympathetic nervous systems and the periaqueductal grey matter, which stimulates opioid release. The combination of these effects on gastro-intestinal motility and visceral pain may explain why acupuncture can be so efficacious in treating gastro-intestinal disorders.

The connection between acupuncture and the oxytocinergic system has been generating interest in the field of autistic spectrum disorder (ASD) research. A recent review of acupuncture and ASD studies[16] speculated that acupuncture may benefit the behavioural symptoms of autism by directly up-regulating levels of oxytocin in the hypothalamus and increasing OT levels in the key regions of the regulatory reward system in the brain. This mechanism has particular relevance as plasma OT levels in children with ASD have been found to be significantly lower than those of non-ASD age-matched peers.[16]

Whilst there is a lack of consistent, good quality research linking acupuncture and adjunctive therapies with the production of oxytocin, the above brief summary of some of the available research provides compelling evidence that there is a link that warrants further research and investigation.

In researching for this article, it became evident that oxytocin production is increasingly being linked with highly beneficial effects on a vast range of conditions from autism[17] to cancer.[18] In fact, it seems to be something of a missing link between many conditions and our ability to safely and effectively treat them. Having established the efficacy of oxytocin, in the western medical paradigm, the next logical step may well be to begin administering synthetic oxytocin on a wide scale as a sort of fix-all, cheap preventative medicine. The difficulty with this pharmacological

approach is that natural oxytocin production in the body is pulsatile.[19] If levels of oxytocin become too high for too long in the body, oxytocin receptors can down-regulate.[19] This suggests that rather than taking a pharmacological approach to increasing oxytocin levels, more research needs to be conducted into how we can support patients to find ways to naturally create circumstances in which their oxytocin levels can be boosted. Perhaps this may open a way for the holistic approach of traditional Chinese medicine to begin to become a more integrated part of our healthcare offering in the UK. Whilst I firmly believe that in many cases, pharmacological, interventionist and reductionist approaches are wholly appropriate methods of treatment, in order to create a sustainable healthcare system, preventative and holistic medicine, which help patients to take responsibility for their own health and provide them with tools to manage their own well-being, need to take a more central role.

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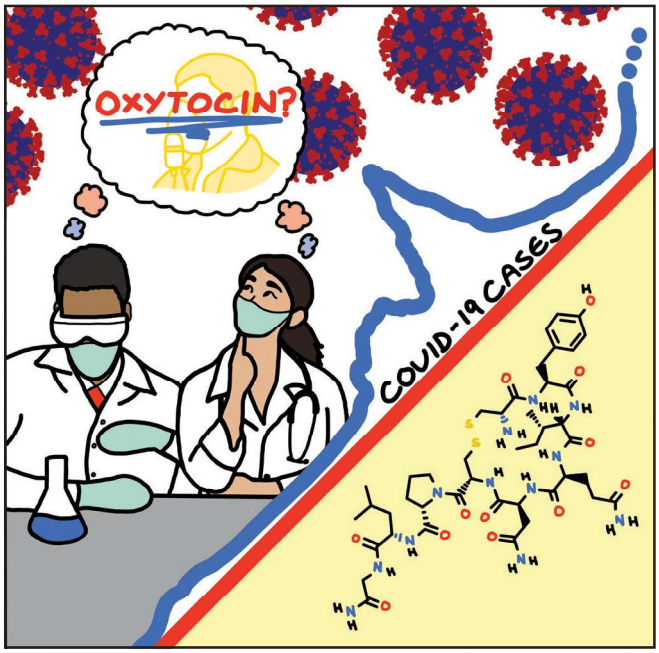

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