

An *In Vitro* Investigation of T-Consciousness Fields' Effects on Wound Healing through Scratch Assay

Mohammad Ali Taheri¹, Sara Torabi², Farid Semsarha^{3*}

* Corresponding author: Farid Semsarha Ph.D., Institute of Biochemistry and Biophysics (IBB), University of Tehran, P.O. Box: 13145-1384, Tehran, Iran
Tel.: +98-9121786577

1- Sciencefact R&D Department, CosmoIntel Inc. Research Center, Ontario, Canada.

2- Department of Plant Biology, School of Biology, College of Sciences, University of Tehran, Tehran, Iran.

3- Institute of Biochemistry and Biophysics (IBB), University of Tehran, Tehran, Iran.

Email: Semsarha@ut.ac.ir

DOI: doi.org/10.61450/joci.v4i16.205

Abstract

Various theories about Consciousness have been proposed, but there is no consensus definition within the scientific community. Taheri introduced the concept of T-Consciousness to differentiate his perspective from others. According to his theory, T-Consciousness is a non-physical entity and serves as the fundamental element of the universe, from which information, matter, and energy originate. This theory also posits the existence of various T-Consciousness Fields (TCFs), each with distinct functions, that are the subcategory of the Cosmic Consciousness Network (CCN), representing the whole consciousness of the universe. In the current experiment, we investigated the wound-healing effects of two types of TCFs: the Faradarmani Consciousness Field (FCF) and the T-Consciousness Charge Field (TCCF), using a scratch assay. According to Taheri's theory, when a sample is exposed to TCFs, the information transmitted can alter the properties of that substance. To test this, we used endometrial stem cells (EnSC) as a model for *in vitro* wound healing. The cells were mechanically wounded with a sterile pipette tip, and the wound closure rate was measured by capturing images at 0, 6, 12, and 24-hour intervals. The experiment included four groups: control (0), control with water, cells exposed to FCF-treated water, and cells exposed to TCCF-treated water. After 6 hours, a significant reduction in empty space was observed in the TCCF-treated group compared to the control 0 group (p -value < 0.05), indicating an acceleration in wound healing. Additionally, after 24 hours, there was an insignificant 6% improvement in healing in the water control group compared to the control (0) group, suggesting that water alone facilitates healing processes. However, treatment with TCCF-treated water and FCF-treated water resulted in approximately 56% and 33% healing, respectively, compared to the control (0) group, and a 47% and 26% improvement in wound repair compared to the water control group (p -value < 0.001). On average, TCCF demonstrated a 75% greater effectiveness in promoting wound healing compared to FCF. Further studies are needed to understand the molecular mechanisms through which TCFs influence cellular processes and wound repair.

Keywords: Wound-healing, Faradarmani Consciousness Field, T-Consciousness Charge Field, Scratch assay, Water

Introduction

The scratch wound healing assay is a widely used method to investigate the potential effects of therapeutic drugs. For example, evaluating different conditions that influence cell migration and proliferation is particularly valuable in studies related to physiology and oncology (Te Boekhorst et al., 2016; Charras and Sahai, 2014; Van Helvert et al., 2018). A wide range of substances, from chemically derived medications to natural compounds, have been utilized in medical practice to promote wound healing (Anlas et al., 2019; Abbas et al., 2019). Not only does it play a crucial role in reducing pain, but it can also decrease postsurgical stress and scar formation (Aarabi et al., 2007; Hu et al., 2010).

Consciousness is one of the most elusive phenomena in science. Numerous theories have been proposed across various fields, including psychology, philosophy, neuroscience, and computer science, but it is hard to find a common perspective among them. Moreover, their definitions often lack compatibility (Francken et al., 2022; Evers et al., 2024). When it comes to empirical evidence, we face the question of whether this subjective phenomenon can be evaluated objectively. Indeed, designing laboratory experiments to study consciousness presents significant challenges (Schurger and Graziano, 2022).

In the 1980s, Mohammad Ali Taheri introduced a theory suggesting that matter, energy, and information originate from consciousness. He coined the term T-Consciousness to differentiate his theory. According to Taheri, there are different T-Consciousness Fields (TCFs) containing non-physical entities with specific functions (Taheri, 2013). These TCFs can be applied to a range of subjects, from living organisms to inanimate materials. This distinctive feature inspired us to design experiments to evaluate their interaction with matter and energy (Taheri et al., 2023a; Taheri et al., 2024). Unlike physical fields such as magnetic fields, the application of TCFs does not require a device. Instead, the influence of

TCFs is initiated through the human mind with a brief attention on the subject under study.

As mentioned above, each TCF has a specific function. When a sample is exposed to one of these fields, the transmitted information via TCFs may alter its behavior (Taheri et al., 2023). Therefore, it is valuable to compare the effects of different types of TCFs on various samples in a laboratory setting. To explore this, the current experiment evaluated the effects of two TCFs, namely Faradarmani Consciousness Field (FCF) and T-Consciousness Charge Field (TCCF), on the wound healing process, comparing them with untreated controls.

Materials and Methods

Materials

The equipment and materials used in this study are as follows: CO₂ incubator (Memmert, Germany), Class II laminar hood (Zal Tajhiz, Iran), centrifuge (Eppendorf, Germany), inverted microscope (OPTIKA, Italy), light microscope (Nikon, Japan), Falcon tubes (15 and 50 mL), 25 and 75 cm³ flasks, 96-well ELISA reader plates (SPL Life Science, South Korea), endometrial stem cells (EnSC) (Endometrial stem cells, National Center for Genetic and Biological Resources of Iran), ethanol (Merck, Germany), DMEM/F12 culture medium (Gibco, USA), fetal bovine serum (FBS) (Gibco, USA), penicillin/streptomycin (Biosera, France), trypsin-EDTA (Gibco, USA).

Application of T-Consciousness Fields

TCFs were applied to the samples according to protocols regulated by the COSMOintel Research Center (www.COSMOintel.com). More details have been explained in the general consideration of this issue. In this work, there were four experimental groups: (1) control 0, (2) control with water, (3) cells exposed to FCF-treated water, and (4) cells exposed to TCCF-treated water.

Culturing and Passaging of EnSC Cells

To passage EnSC cells, the cells were first washed with PBS buffer. Trypsin 1x was added (1 mL in a T25 flask and 2 mL in a T75 flask) and the flask was incubated at 37°C for 1 minute to detach the cells from the flask surface. After several pipetting actions to ensure the cells were in a single-cell suspension (confirmed by microscopic observation with no visible cell clumps), the trypsin was neutralized using a medium containing FBS, followed by additional pipetting. The cells from one flask were then transferred to several other flasks. For cell freezing, after detaching the cells from the flask and pelleting them by centrifugation, 1 mL of a freezing solution (FBS containing 10% dimethyl sulfoxide (DMSO)) was added to the cells. Each 1 mL of cells was transferred to a cryovial, rapidly placed at -20°C, and after 2 hours, moved to a -70°C freezer. After 24 hours, the cells were transferred to a liquid nitrogen tank at -196°C.

EnSC Culturing and Scratch Assay

First, EnSC cells were counted, and 5×10^4 cells were placed in each 24-well plate in a complete cell culture medium. The cells were then allowed 24 hours to adhere to the plate surface. Afterward, the cells were incubated with a complete culture medium for 24 hours. The medium was then removed, and the cells were washed twice with PBS. The plate was then mounted onto the imaging template and placed on the stage of an Olympus IX71 inverted microscope. $4\times$ phase-contrast and brightfield images were taken at 0, 6, 12, and 24-hour

intervals which were then analyzed using Image J (v1.54f). The amount of sample tested for each assay was 100 μ l in a volume of 1 ml from the cell culture wells and the quantification of the remaining empty space were conducted following the protocol of Suarez-Arnedo et al. 2020.

Statistical Analysis

All tests were conducted with at least three repetitions. Data were expressed as absolute values and as mean \pm standard deviation. All analyses were performed using GraphPad software version 9. A p-value of ≤ 0.05 was considered the threshold for significance.

Results and Discussion

We used scratch assay as a simple and well-established laboratory method for measuring cell migration under experimental conditions. It is also a suitable way to mimic cell migration during wound healing in the body, allowing researchers to use cell imaging throughout the migration process (Liang et al., 2007). Table 1 presents the data on the remaining empty space at 6, 12, and 24 hours after the initial scratch (time zero). Table 2 details the percentage of changes in empty space between time zero and 24, as well as the percentage of healing, or filling of the empty space, compared to both control-0 and control-water. The average change in empty space over time is depicted in Figure 1. Additionally, images from various time points for one sample from each of the experimental groups are shown in Figure 2.

Table 1. Changes in the percentage of remaining empty space after scratch in treated and control samples at 0, 6, 12, and 24 hours after the scratch. Values with significant differences (p -value < 0.05) from the control-0, obtained using one-way ANOVA, are shown in bold.

Sample	Time/hrs.			
	0	6	12	24
Control (0)	48.2±1.5	45.6±2.5	42.0±0.8	30.3±2.2
Control Water	46.2±0.3	42.5±1.0	36.4±1.0	28.1±1.7
TCCF	47.3±1.8	31.5±2.3	27.3±1.9	20.0±0.5
FCF	45.8±1.3	42.3±2.6	32.3±1.7	23.2±2.1

TCCF: T-Consciousness Charge Field; FCF: Faradarmani Consciousness Field

Table 2. Percentage change in remaining empty space between time zero and time 24, for each group and the efficiency of wound closure (Healing) in comparison to Control (0) and Control water. Statistical significance was assessed using two-way ANOVA. Values with p -value < 0.001 are marked with **.

Sample	% Change		
	Empty space at 0 hours compared to 24 hours	Healing relative to Control (0)	Healing relative to Control water
Control (0)	-37.0	-	-5.6
Control Water	-39.2	5.9	-
TCCF	-57.7	56.5**	47.2**
FCF	-49.3	33.3**	25.8**

TCCF: T-Consciousness Charge Field; FCF: Faradarmani Consciousness Field

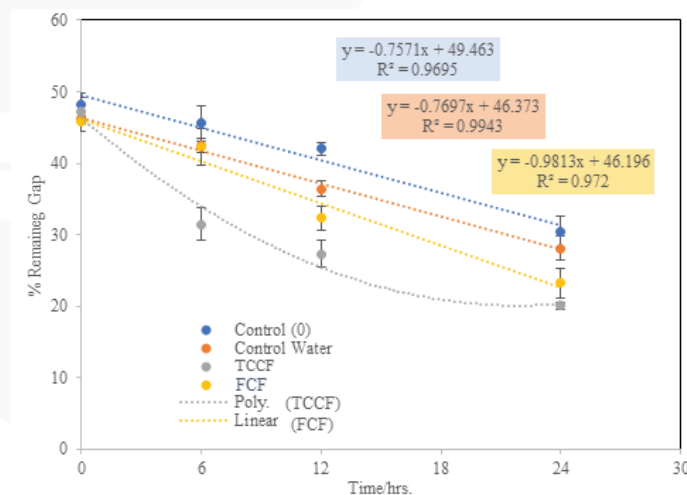


Figure 1. The percentage of remaining gap created by the scratch at 0, 6, 12, and 24-hour intervals in the experimental groups: Control 0, Control water, cells exposed to water treated with T-Consciousness Charge Field (TCCF), and cells exposed to water treated with Faradarmani Consciousness Field (FCF).

As shown in Tables 1 and 2, the healing rate in the scratch assay demonstrated a minimal improvement of approximately 6% in the water control compared to the control at 0 hours. After 6 hours, the lowest empty space was related to

the TCCF-treated cells compared to the control 0 (p -value < 0.05), suggesting an acceleration in wound healing.

The observed minor improvement in control with water can be attributed to water's role in facilitating essential physical and biological repair processes. Under similar conditions, treatment with TCCF-treated water and FCF-treated water resulted in approximately 56% and 33% healing compared to the control 0,

and a 47% and 26% improvement in healing compared to the water control, respectively. It suggests that, in the current experiment, TCCF was, on average, 75% more effective than FCF.

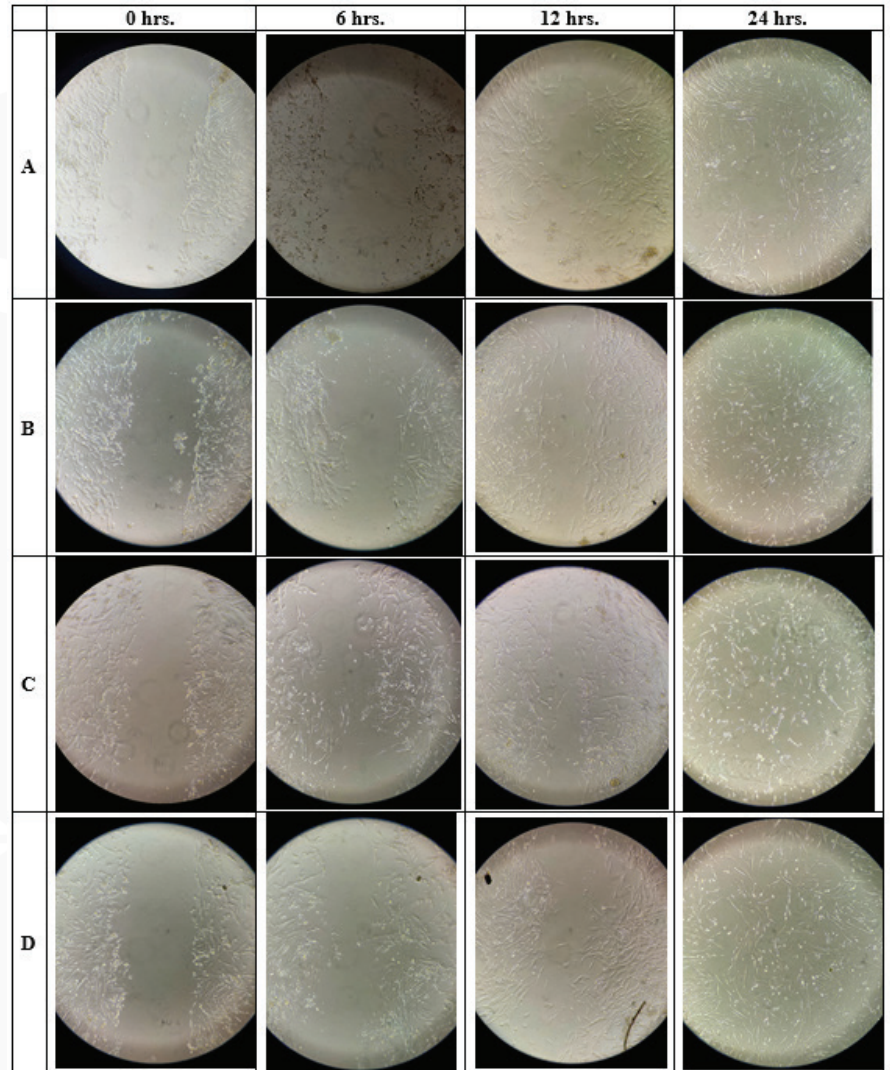


Figure 2. Images of one control and TCFs-treated sample at various time points in this study; A: Control (0), B: Water Control, C: T-Consciousness Charge Field, D: Faradarmani Consciousness Field.

Cell migration is a critical process in wound healing. Therefore, numerous studies have been conducted using various cell types to assess the therapeutic effects of different treatments, with a particular focus on cell migration, proliferation, and the ability to close the wound gap (Yarrow et al., 2004). For instance, the effectiveness of several chemical compounds, such as chitosan (Felice et al., 2015), hyaluronic acid (D'Agostino et al., 2015), nanoparticles (Haghniaz et al.,

2021), and ascorbic acid (Weeks et al., 2023), has been documented.

This is the first time that the treatment of TCFs with a non-physical entity has been evaluated using the scratch test. It's important to note that FCF was introduced as a complementary therapy by Taheri (Taheri, 2013). Unlike other complementary therapies, which typically utilize natural resources like phytochemicals, the influence of TCF treatment is initiated

through establishing a connection between the Whole Consciousness of the universe, which is referred to as the Cosmic Consciousness Network (CCN) by Taheri, and the subject of the study. The TCFs are subcategories of this network.

In this process, the human mind acts as an intermediary, initiating the connection through brief attention to the TCFs. However, it should be emphasized that alterations in cell migration and wound closure are driven by the TCFs themselves, not by the human mind. As described in the general consideration of this issue, this experiment was conducted in a double-blind method, and the individual who administered the treatment was unaware of the study's details.

Furthermore, different results have been obtained under the influence of these two TCFs, highlighting their distinct functions. According to Taheri, the information transmitted via each TCF leads to alterations in the behavior of the subjects under study (Taheri et al., 2023a). In our previous experiments, it was found that FCF increased cell survival under microgravity stress (Semsarha et al., 2023) and promoted the proliferation of a cell line (Taheri et al., 2022).

Plant-based treatments have long been used to alleviate skin-related disorders, particularly wounds (Fronza et al., 2009; Addis et al., 2020).

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Similarly, homeopathic drugs, which typically use highly diluted solutions derived from plant or mineral origins, have demonstrated wound-healing effects (Gupta et al., 2018; Hostanska et al., 2012). What makes the TCFs treatments, including FCF and TCCF, unique is that their application does not require any physical components or interventions. They can be considered a form of qualitative treatment.

In conclusion, this study demonstrates the potential of two types of TCFs treatments in accelerating wound healing, further research is needed to elucidate the precise mechanisms involved. Investigating how TCFs influence cellular processes and wound repair at the molecular level will be crucial in understanding their interaction with cells. Future studies should focus on identifying the pathways and associations that mediate these effects, which could pave the way for more targeted and effective applications of TCFs treatment in wound healing. Open wounds are highly susceptible to microbial contamination (Milne and Penn-Barwell, 2020). In this context, the faster wound closure observed under the influence of TCCF-treated water highlights the potential benefits of this treatment in reducing the risk of infection.

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