

**A Qualitative Review Study on the Effectiveness of Qi Coil  
PEMF Therapy in Pain  
Management, Sleep Quality, Reducing Stress & Anxiety and  
Increasing Mindfulness and Energy Levels**

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***Abstract***

***A qualitative review study on effectiveness of PEMF in Pain management pain management, sleep quality, managing stress & anxiety, and energy levels.***

***Keywords:*** PEMF, Sleep, Mindfulness, Anxiety.

***Protocol***

Protocol Title	A qualitative review study on effectiveness of PEMF in pain management, sleep quality, managing stress & anxiety, and energy levels.
Objective	Evaluating the efficacy of the Qi Coil PEMF in pain management, sleep quality, managing stress & anxiety, and energy levels.
Design	Qualitative review survey.
Sample Size	44 Subjects.
Study Duration	Total study duration: 30days.
Inclusion Criteria	<ul style="list-style-type: none"><li>a. Healthy male and female subjects within the age group 25 to 65.</li><li>b. Owns a Qi Coil or has access to one.</li><li>c. Without any adverse physical and psychological impairments.</li><li>d. Subject able to comply with protocol requirements, as defined in the protocol.</li><li>e. The subject should psychologically be able to understand the study-related information, provide their written informed consent, and answer various research questionnaires.</li><li>f. General health questionnaires (GHQ)</li></ul>
Exclusion Criteria	<ul style="list-style-type: none"><li>a. The presence of cognitive and/or neurological and/or metabolic and/or behavioural disorders based on medical</li></ul>

	<p>history.</p> <ul style="list-style-type: none"> <li>b. Those on medication, which are known to influence cognitive functions.</li> <li>c. Smoking or alcoholism which may influence the metabolic variables.</li> <li>d. Women who are pregnant or nursing a child.</li> <li>e. Allergy or sensitivity to electronic gadgets.</li> <li>f. Any individual who does not meet the inclusion criteria.</li> <li>g. A subject who had been deprived of their freedom by administrative or legal decision or who is under guardianship.</li> <li>h. Subjects in an emergency situation.</li> </ul>
Investigational product	Qi Coil PEMF device.
Duration:	Each subject is advised to use Qi Coil for a minimum period of 30 days.
Dosage:	Every day 15 - 30 mins of exposure to PEMF from Qi Coil.
Administration Route:	Direct exposure to human biofield.
Safety Parameters	Analysis of adverse events and electrosensitivity.
Efficacy Parameters	<ul style="list-style-type: none"> <li>A. Standard research questionnaires will be used to scale sleep quality, mindfulness, and pain.</li> </ul>
Study Procedure	<p>The following procedures will be used to conduct the study:</p> <ul style="list-style-type: none"> <li>1. According to the inclusion criteria, subjects will be selected.</li> <li>2. Subjects will be instructed to use the recommended PEMF frequency in their Qi Coil.</li> <li>3. Subjects will be instructed to record their response to the questionnaires at</li> </ul>

	<p>recommended intervals during the duration of the study.</p> <p>4. The response will be collected and compiled for statistical analysis.</p>
Statistical Analysis	To validate the efficacy the two-tail ended paired t-test will be conducted, where $p < 0.05$ will be considered significant.

### ***Scales Used***

#### ***Pittsburgh Sleep Quality Index***

The PSQI is a 19-item, self-rated questionnaire designed to measure sleep quality and disturbance over the past month in clinical populations.<sup>17</sup> The 19 items are grouped into 7 components, including (1) sleep duration, (2) sleep disturbance, (3) sleep latency, (4) daytime dysfunction due to sleepiness, (5) sleep efficiency, (6) overall sleep quality, and (7) sleep medication use. Each of the sleep components yields a score ranging from 0 to 3, with 3 indicating the greatest dysfunction. The sleep component scores are summed to yield a total score ranging from 0 to 21 with the higher total score (referred to as global score) indicating worse sleep quality.

#### ***Depression, Anxiety and Stress Scale - 21 Items (DASS-21)***

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress.

### ***Mindfulness, Attention and Awareness Scale***

The MAAS is a 15-item scale designed to assess a core characteristic of dispositional mindfulness, namely, open or receptive awareness of and attention to what is taking place in the present. The scale shows strong psychometric properties and has been validated with college, community, and cancer patient samples. Correlational, quasi-experimental, and laboratory studies have shown that the MAAS taps a unique quality of consciousness that is related to, and predictive of, a variety of self-regulation and well-being constructs.

### ***The Perceived Stress Scale***

The Perceived Stress Scale (PSS) is a classic stress assessment instrument. The tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress.

### ***Pain Quality Assessment Scale***

The pain quality assessment scale (PQAS) is a more generic instrument which will differentiate between more nociceptive and more neuropathic pain conditions.<sup>5 28</sup> Clearly, complex chronic pain conditions may have components of nociceptive, inflammatory, and neuropathic pain mechanisms.

### ***Methodology***

1. According to the inclusion criteria, subjects will be selected.
2. Subjects will be instructed to use the recommended PEMF frequency in their Qi Coil.
3. Subjects were instructed to record their response to the questionnaires at

recommended intervals during the duration of the study.

4. The response will be collected and compiled for statistical analysis.

***Statistical analysis :***

***Results***

***PSQI - Pittsburgh Sleep Quality Index***

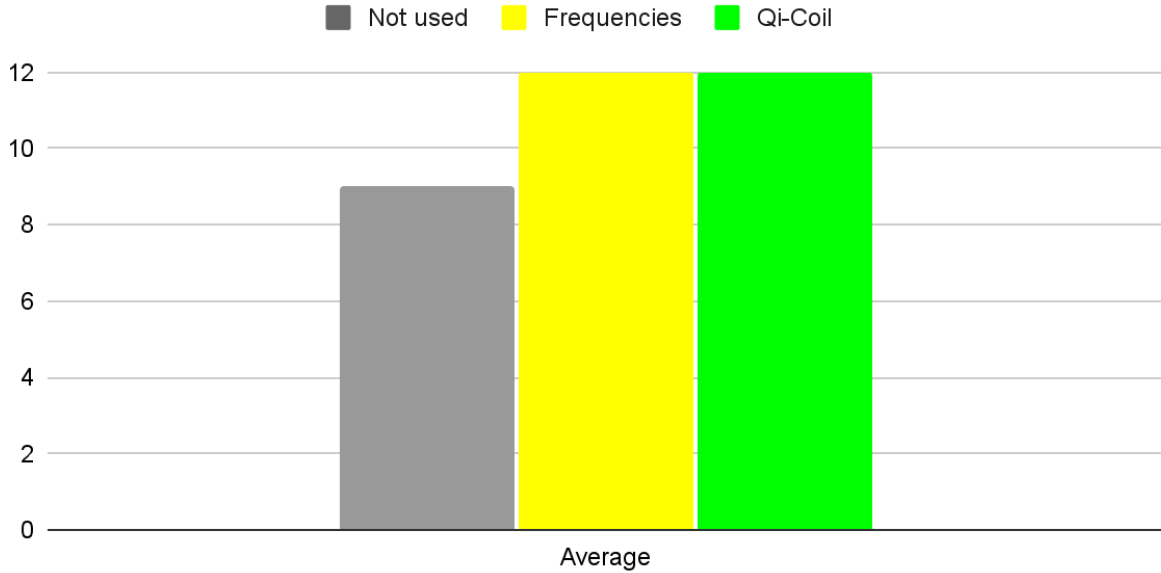
	Not used	Qi Coil App Frequencies	Qi Coil
Average	9	12	12
Standard Deviation	0.539	0.602	0.777

**P value and statistical significance:**

The two-tailed P value is less than **0.0001**

By conventional criteria, this difference is considered to be extremely statistically significant.

### PSQI - Pittsburgh Sleep Quality Index



### *DASS (Stress) - Depression Anxiety Stress Scale*

	Not used	Qi Coil App Frequencies	Qi Coil
Average	7.521	6.347	25.695
Standard Deviation	5.434	5.157	5.147

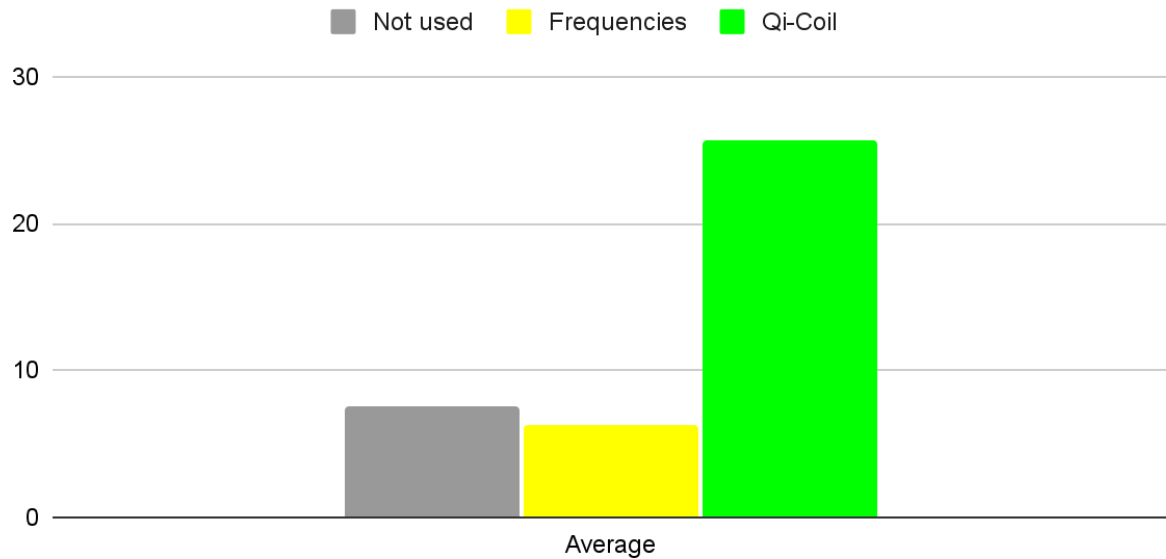
### **P-value and statistical significance:**

The two-tailed P-value is less than **0.0001**

By conventional criteria, this difference is considered to be extremely statistically significant.



### DASS (Stress)



DASS (Stress) - Depression Anxiety Stress Scale

### *DASS (Anxiety)*

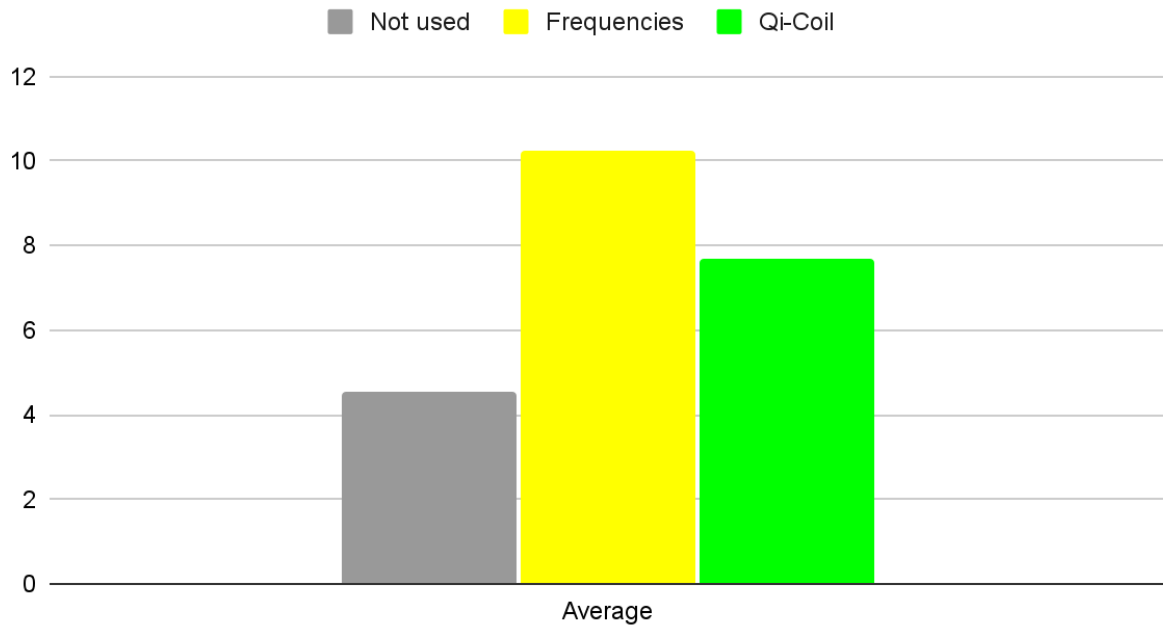
	Not used	Qi Coil App Frequencies	Qi Coil
Average	4.521	10.260	7.695
Standard Deviation	2.332	9.489	5.147

### **P-value and statistical significance:**

The two-tailed P value equals **0.0100**

By conventional criteria, this difference is considered to be very statistically significant.

### DASS (Anxiety)



### *DASS (Depression)*

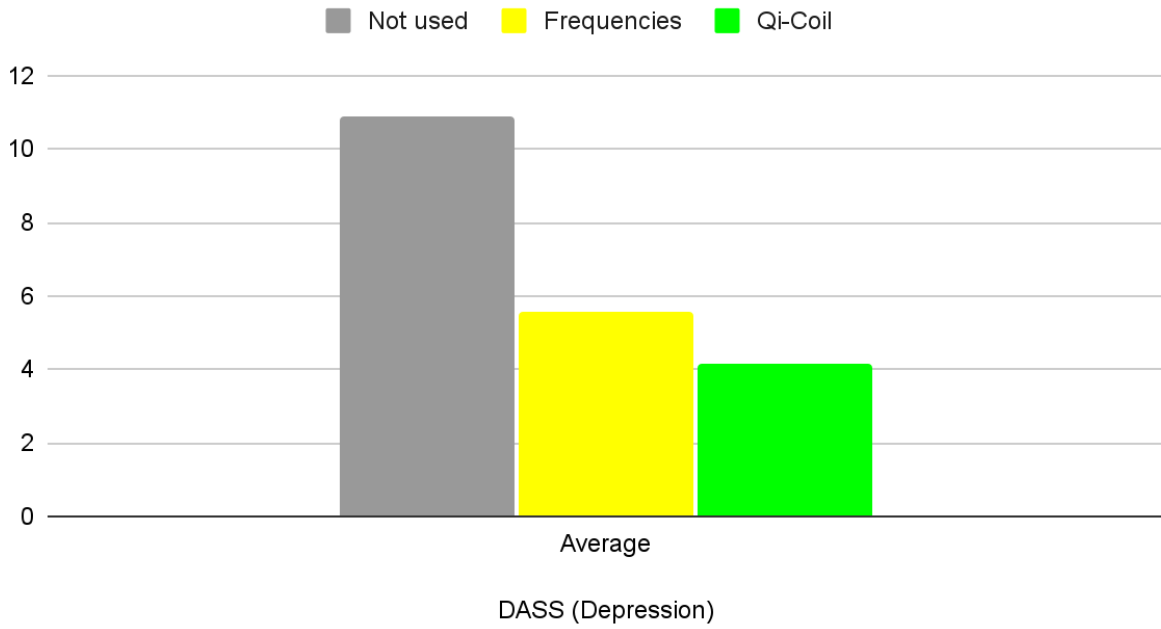
	Not used	Qi Coil App Frequencies	Qi Coil
Average	10.869	5.565	4.173
Standard Deviation	5.903	5.930	5.147

### **P-value and statistical significance:**

The two-tailed P-value equals **0.0002**

By conventional criteria, this difference is considered to be extremely statistically significant.

### DASS (Depression)



### *MAAS - Mindfulness, Attention and Awareness Scale*

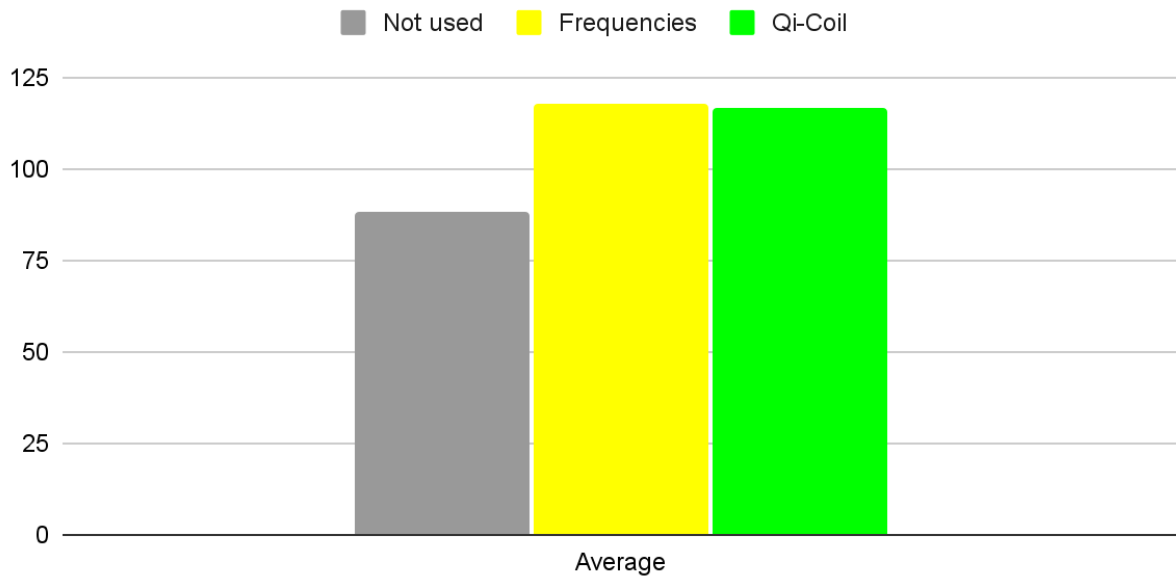
	Not used	Qi Coil App Frequencies	Qi Coil
Average	88.37	117.69	116.62
Standard Deviation	14.17	44.11	45.600

**P value and statistical significance:**

The two-tailed P value equals **0.0002**

By conventional criteria, this difference is considered to be extremely statistically significant.

### MAAS - Mindfulness, Attention and Awareness Scale



### *PSS - Perceived Stress Scale*

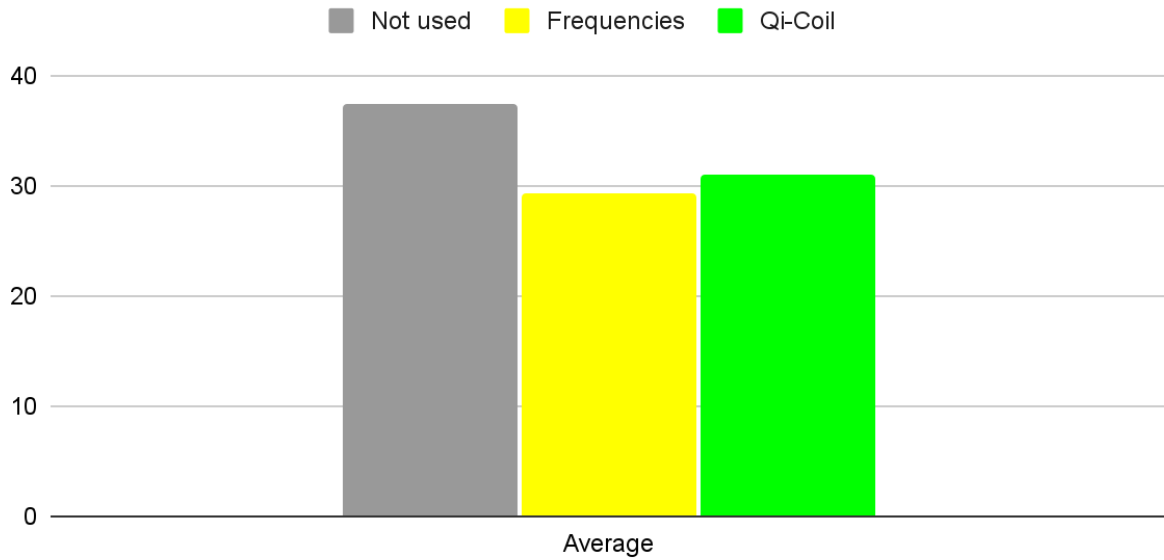
	Not used	Qi Coil App Frequencies	Qi Coil
Average	37.347	29.217	31.041
Standard Deviation	7.952	7.217	5.607

**P-value and statistical significance:**

The two-tailed P-value equals **0.0033**

By conventional criteria, this difference is considered to be very statistically significant.

### PSS - Perceived Stress Scale



PSS - Perceived Stress Scale

### *PQAS - Pain Quality Assessment Scale*

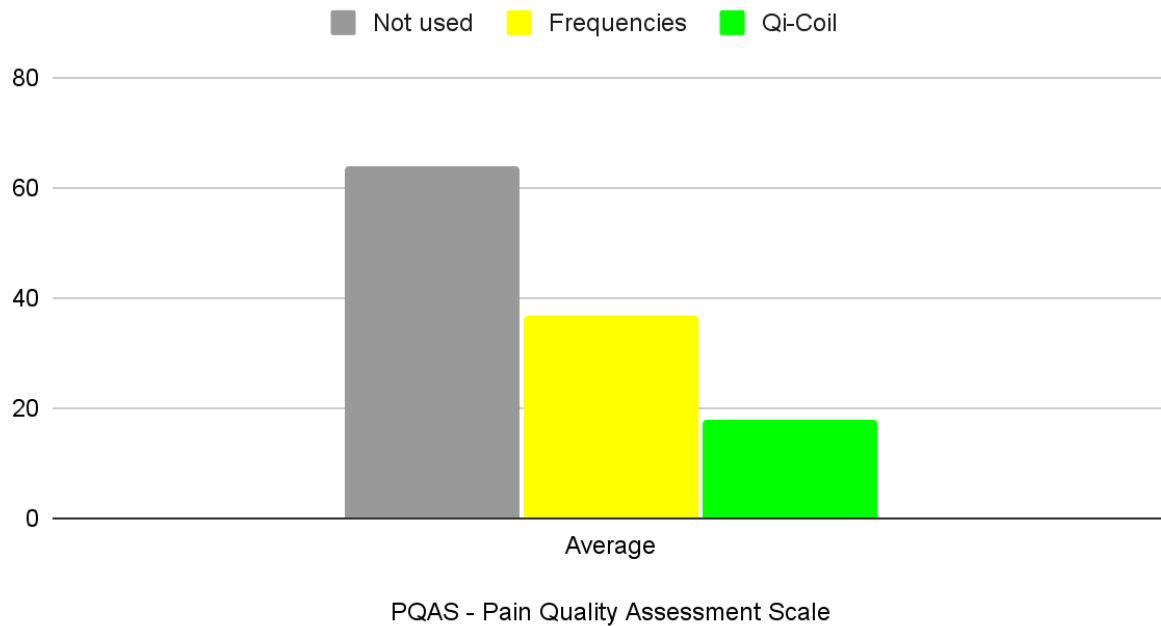
	Not used	Qi Coil App Frequencies	Qi Coil
Average	64.043	36.652	17.869
Standard Deviation	47.395	35.972	15.220

### **P-value and statistical significance:**

The two-tailed P-value is less than **0.0001**

By conventional criteria, this difference is considered to be extremely statistically significant.

### PQAS - Pain Quality Assessment Scale



### ***Discussion***

According to the study results, all scales evaluated in the study showed statistically significant differences between the control group and study group. A statistical comparison of *Pittsburgh sleep quality index (PSQI)*, *Depression Anxiety Stress Scale (DASS)*, *Pain Quality Assessment Scale (PQAS)* and *Mindfulness, Attention and Awareness Scale (MAAS)* results revealed extremely high statistical significance, and a high statistical significance was also found for the *Perceived stress scale (PQAS)*. The comparative analysis of the parameters highlighted the positive effects on the study group

in comparison with the control group. These evaluated changes were still under the limits to pass the statistical tests.

### ***Conclusion***

Study results showed that the use of Qi Coil App and the Qi Coil had numerous positive effects. There was a significant improvement in the subject's sleep quality, mindfulness, pain levels and anxiety levels.

### ***References***

- 1) Lovibond, S.H. & Lovibond, P.F. (1995). Manual for the Depression Anxiety & Stress Scales. (2nd Ed.) Sydney: Psychology Foundation.
- 2) The PSS Scale is reprinted with permission of the American Sociological Association, from Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396.
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