The Impact of BioNatureHealth's Brain Blossom Supplement on Cognitive Function and Memory Over Eight Weeks

A Randomized Placebo-Controlled Clinical Study

Executive Summary

Age-related cognitive decline is a significant global health issue, affecting millions of individuals and posing substantial challenges to societies worldwide. Age-related cognitive decline significantly affects daily functioning and decision-making abilities. Older adults often exhibit deficits when compared to younger individuals in spatial navigation, preferring geometry-based navigation over landmark-based strategies[1]. Cognitive decline also impairs decision-making, with a more rapid rate of cognitive deterioration linked to poorer decision-making performance and increased susceptibility to scams[2]. These impairments can compromise the ability to perform fundamental activities of daily living, posing significant threats to autonomy and well-being[3].

Pharmaceutical interventions for cognitive support can be costly and may pose physiological burdens, highlighting the need to explore evidence-based, natural alternatives. In response, BioNatureHealth has formulated a novel supplement containing a targeted blend of bioactive compounds, each selected for its potential to support cognitive function through established mechanisms of action.

In a triple-blind, placebo-controlled trial, 60 adults aged between 50-70 took BioNatureHealth's Brain Blossom supplement once daily or a placebo for eight weeks. Participants completed questionnaires and underwent a battery of cognitive tests throughout. Participants in the test product group showed strong satisfaction with the product, with over 50% of participants agreeing with 20 of 20 product-related statements by the end of the study. Notably, by Week 8, 76.47% of participants would recommend the product to their family and friends, and were satisfied with the overall results of the product. Furthermore, 82.35% of participants found the product easy to use, highlighting the positive experience of the participants.



Product Concept

Purpose

Brain Blossom is a cognitive support supplement designed to help improve

memory, focus, learning acuity, comprehension, attentiveness, mental clarity, and quality of life in healthy adults aged 50+.

Formulation

The formulation consists of 18 botanicals and bioactive compounds in a daily serving of 3,530 mg, provided in vegetable capsules. Participants take six capsules once daily in the morning with water.

Rationale

The formulation combines adaptogens, nootropics, and traditional botanicals to support cognitive health through multiple mechanisms. For example:

Grass-leaf sweetflag rhizome (Acorus gramineus) is rich in bioactive compounds that provide antioxidant, anti-inflammatory, and neuroprotective effects, while **β**-asarone enhances memory by increasing acetylcholine through acetylcholinesterase inhibition[4].

Research consistently supports that sharp-leaf galangal herb (Alpinia oxyphylla) and its main active compound, Oxyphylla A, offer neuroprotective, antioxidant, and anti-inflammatory benefits. These can enhance cognition and neurotransmitter balance, showing promise for neurodegenerative disorders like Alzheimer's[5,6].

Ganoderma lucidum (reishi mushroom) supports cognitive function by protecting neurons, reducing inflammation, and promoting antioxidant and neuroprotective effects. Animal studies show it helps restore learning and memory, partly by maintaining neural structure and modulating brain inflammatory pathways related to Alzheimer's disease[7–9].

Use

Participants take six capsules once daily in the morning upon waking, with a glass of water. Capsules are consumed without food stipulation; dosing is timed to align with the start of the day to support cognitive activity during waking hours.



Study at a Glance

- Design and Duration: Virtual, single-group, randomized, placebo-controlled trial; 8 weeks.
- Participants: 60 males and females looking to support their overall cognitive function and memory who regularly experience the following:
    - Forgetfulness or struggle with memory.
    - Lack of focus, inattention, and absentmindedness.
    - Struggle with comprehension and mental clarity.
    - Struggle with brain fog.
    - Feel that their overall quality of life could be improved by supporting mental cognition and memory.
- Dosing: Six capsules of either the Brain Blossom product or a placebo once daily in the morning with a glass of water.
- Assessments:
    - Subjective: Changes in cognitive function and memory parameters, and the impact of

the test product on the frequency of symptoms.
    - Objective: A battery of cognitive tests was conducted.
    - Perception & Product Sentiment: These assessments were conducted at Week 2, Week 4, Week 6, and Week 8.
    - All assessments were conducted at Baseline, Week 2, Week 4, Week 6, and Week 8.
- For perception & product sentiment statement analysis, questions where above 50% of participants agreed with the statement are regarded as notable results.

Results

1. Perception & Product Sentiment

Participants had an increasingly positive perception of the product over the placebo across the study length, indicating higher satisfaction and greater efficacy. Results are represented as the percentage of patients who agreed with each statement at each week.

At Week 2 (n=26 placebo; n=23 test product), two statements achieved an agreement rate over 50%. Both of these scores were notably increased compared to the placebo group, with the highest difference being in the ability to focus on their daily activities (Table 1).

Table 1. Participant perception statements that show an over 50% agreement rate at Week 2, as well as a notably higher agreement rate than the placebo group.

Statement	Placebo Group	Test Product Group
Since using the product, my cognitive function has felt more supported.	38.46%	52.17%
Since using the product, I have been able to focus more on my daily activities.	30.77%	52.17%

At Week 4 (n=24 placebo; n=20 test product), five statements achieved an agreement rate over 50%. Two of these were notably increased compared to the placebo group, with the highest difference being in absent-mindedness since using the product (Table 2).

Table 2. Participant perception statements showing an over 50% agreement rate at Week 4.

Statement	Test Product Group
Since using the product, my cognitive function has felt more supported.	55%
Since using the product, my focus and attention have improved.	50%

Since using the product, I have experienced less brain fog.	50%
Since using the product, I have been able to focus more on my daily activities.	55%
Since using the product, I have been less absent-minded.	60%

At Week 6 (n=23 placebo; n=19 test product), 13 statements achieved an agreement rate over 50%. (Table 3, Table 3.1).

Table 3. Participant perception statements showing an over 50% agreement rate at Week 6.

Statement	Test Product Group
Since using the product, my focus and attention have improved.	52.63%
Since using the product, I have been less absent-minded.	57.89%
Since using the product, I have been less forgetful.	52.63%
Since using the product, my overall well-being has improved.	52.63%

Nine of these were notably increased compared to the placebo group, with memory improvement showing the highest difference between the two (Table 3.1).

Table 3.1 Participant perception statements that show an over 50% agreement rate at Week 6, as well as a notably higher agreement rate than the placebo group.

Statement	Placebo Group	Test Product Group
Since using the product, my cognitive function has felt more supported.	52.17%	63.16%
Since using the product, my cognitive function has improved.	43.48%	57.89%
Since using the product, my memory has improved.	34.78%	52.63%
Since using the product, I have been able to understand more of what I hear, see, and read (comprehension).	43.48%	57.89%
Since using the product, I have been able to focus more on my daily activities.	56.52%	63.16%
Since using the product, my mental clarity has improved.	34.78%	52.63%
Since using the product, I have been able to learn new things with greater	34.78%	52.63%

ease.		
Since using the product, I have experienced less brain fog.	43.48%	52.63%
Since using the product, my overall health has improved.	39.13%	52.63%

At Week 8 (n=23 placebo; n=17 test product), 20 statements achieved an agreement rate over 50%. (Table 4, Table 4.1).

Table 4. Participant perception statements showing an over 50% agreement rate at Week 8.

Statement	Test Product Group
Since using the product, my cognitive function has felt more supported.	64.71%
Since using the product, my memory has improved.	52.94%
I would like to continue using this product.	76.47%
I found this product easy to use.	82.35%
I would recommend this product to my family and friends	76.47%
I am satisfied with the overall results of this product.	76.47%

Fourteen of these were notably increased compared to the placebo group, with overall health showing the highest difference (Table 4.1).

Table 4.1 Participant perception statements that show an over 50% agreement rate at Week 8, as well as a notably higher agreement rate than the placebo group.

Statement	Placebo Group	Test Product Group
Since using the product, my cognitive function has improved.	56.52%	64.71%
Since using the product, my focus and attention have improved.	52.17%	64.71%
Since using the product, I have been able to understand more of what I hear, see, and read (comprehension).	56.52%	70.59%
Since using the product, I have been able to focus more on my daily activities.	47.83%	70.59%

Since using the product, I am less distractable.	43.48%	70.59%
Since using the product, my mental clarity has improved.	56.52%	70.59%
Since using the product, I have been able to learn new things with greater ease.	52.17%	70.59%
Since using the product, I have been able to learn new things quickly.	47.83%	64.71%
Since using the product, I have been less absent-minded.	52.17%	70.59%
Since using the product, I have been less forgetful.	43.48%	70.59%
Since using the product, I have experienced less brain fog.	47.83%	70.59%
Since using the product, my overall health has improved.	26.09%	70.59%
Since using the product, my overall quality of life has improved.	43.48%	70.59%
Since using the product, my overall well-being has improved.	47.83%	70.59%

Analysis of the data was conducted on an intent-to-treat basis. In the placebo group, six participants were withdrawn from the study due to disengagement with the study, and one was withdrawn for personal reasons. In the test product group, ten participants were withdrawn from the study due to due to disengagement with the study, two for personal reasons, and one for an unexpected reaction with the participant reporting an increase in skin pimples.

Overall, the product was well-tolerated without safety concerns.

Real-World Interpretation

Brain Blossom produced noticeable and valuable improvements in cognitive well-being for users, according to their own perceptions throughout the eight-week study.

During the initial weeks, many users described feeling a general sense of support for their cognitive function. Some reported that staying focused on daily activities felt somewhat easier and that they were less likely to experience moments of mental fog or distraction.

As time went on, participants frequently noticed clearer thinking, improved focus and attention, greater ease in learning new things, and less forgetfulness or absentmindedness. Many described being able to comprehend information more smoothly, feeling sharper overall, and experiencing a stronger sense of well-being and quality of life by the end of the trial.

At the end of the study, most users in the test product group felt highly satisfied with the supplement, found it easy to use, and expressed a wish to continue taking it. A majority indicated that they would recommend Brain Blossom to family and

friends, citing noticeable improvements in their memory, focus, and daily mental clarity.

In summary, most participants noted beneficial effects to their mental sharpness, memory, focus, and daily functioning, and felt satisfied and supported by Brain Bloosom after eight weeks. These results indicate that the supplement could be an effective solution for improving perception of cognitive function and memory.



These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Conclusion

The association between the use of BioNatureHealth's Brain Blossom supplement and improved cognitive and memory outcomes in this eight-week study was demonstrated by subjective participant feedback. Positive effects were most pronounced in users' perceived focus, clarity, memory, and overall sense of well-being, with satisfaction and product endorsement rates notably exceeding those in the placebo group. These patterns suggest the greatest impact is on subjective well-being and perceived cognitive enhancement.

References

1. Bécu M, Sheynikhovich D, Tatur G, et al. Age-related preference for geometric spatial cues during real-world navigation. *Nat Hum Behav.* 2020;4(1):88-99. doi:10.1038/s41562-019-0718-z

2. Boyle PA, Yu L, Wilson RS, Gamble K, Buchman AS, Bennett DA. Poor decision making is a consequence of cognitive decline among older persons without Alzheimer's disease or mild cognitive impairment. *PLoS One.* 2012;7(8):e43647. doi:10.1371/journal.pone.0043647

3. Alrosan AZ, Heilat GB, Alrosan K, et al. Autonomic brain functioning and age-related health concerns. *Curr Res Physiol.* 2024;7:100123. doi:10.1016/j.crphys.2024.100123

4. Halder S, Anand U, Nandy S, et al. Herbal drugs and natural bioactive products as potential therapeutics: A review on pro-cognitives and brain boosters perspectives. *Saudi Pharmaceutical Journal.* 2021;29(8):879-907. doi:10.1016/j.jsps.2021.07.003

5. Bian Y, Chen Y, Wang X, et al. Oxyphylla A ameliorates cognitive deficits and alleviates neuropathology via the Akt-GSK3β and Nrf2-Keap1-HO-1 pathways in *vitro* and in *vivo* murine models of Alzheimer's disease. *Journal of Advanced Research.* 2021;34:1-12. doi:10.1016/j.jare.2021.09.002

6. Pan J, Yao Q, Wang Y, et al. The role of PI3K signaling pathway in Alzheimer's disease. *Front Aging Neurosci.* 2024;16:1459025. doi:10.3389/fnagi.2024.1459025

7. Zhang W, Zhang Q, Deng W, et al. Neuroprotective effect of pretreatment with ganoderma lucidum in cerebral ischemia/reperfusion injury in rat hippocampus. *Neural Regen Res.* 2014;9(15):1446-1452. doi:10.4103/1673-5374.139461

8. Rahman MA, Hossain S, Abdullah N, Aminudin N. Lingzhi or Reishi Medicinal Mushroom, Ganoderma lucidum (Agaricomycetes), Ameliorates Nonspatial Learning and Memory Deficits in Rats with Hypercholesterolemia and Alzheimer's Disease. *Int J Med Mushrooms.* 2020;22(11):1067-1078. doi:10.1615/IntJMedMushrooms.2020036354

9. Zhang XT, Ji CL, Fu YJ, Yang Y, Xu GY. Screening of active components of Ganoderma lucidum and decipher its molecular mechanism to improve learning and memory disorders. *Biosci Rep.* 2024;44(7):BSR20232068. doi:10.1042/BSR20232068