

Acupen the New Way to Write and Heal

¹Dr. Selvi S, ²Abhilash R.G, ³Harshit Raikar, ⁴Pinnaparaju Manoj

¹ Professor, ^{2,3,4} IV Semester MBA Student,

CMS Business School, Jain (Deemed-To-Be-University), Bangalore, India

DOI: <https://doi.org/10.5281/zenodo.7929715>

Published Date: 12-May-2023

Abstract: In an age where digitization of notes is the norm, writing using pens as the primary device still plays a prominent role in the world. But this comes with its fair share of downsides as well, in the form of it being a mundane activity, harm to the muscles and bones in the wrist and hand and a lack of scope for indulgence and comfort. The proposed solution to these comes in the form of 'Acupen'. Designed with ergonomic precision to make the action of holding and moving a pen easier, more comfortable, and effortless, as well as ideas from acupressure to help alleviate the physiological stressors that come with, 'Acupen', aims to capture the market population that is dissatisfied with the writing devices currently present in the market due to their lack of people friendliness and the long-term implications to skeletal and muscular health of individuals that become apparent later on the lives.

Keywords: Digitization, Note-taking, Pen, Health, comfort, ergonomics, acupressure.

1. INTRODUCTION

We are in the age of digitization. We have moved away from physical meetings, interactions, records and to a large extent even moved to digital presences. With this exodus in the general behavior of the population, humankind on the whole is slowly becoming more complacent to the physical world and the nuances it holds. But one such nuance, which has huge implications and cannot be replaced completely is that of writing physically.

Irrespective of the aids present in the digital era to streamline notetaking and reduce human effort, writing physically is an irreplaceable action that every individual has an affinity with, and will continue to do so. But, as suggested, we have migrated so far away from physical actions and presences that writing has become a chore more than a normal action of man. The extent of it is such that 'Writer's Cramp' is a condition that is prevalent in the youth upon early onset of adulthood. And the prevalence rates are higher than ever before (Thomson P.D, 1993).

While at the forefront of science and technology, not much has been done to alleviate the physical stressors present in the action of writing. With ergonomics being a major area of research not just for human comfort but for design that revolutionizes everyday household items to maximize efficiency and minimize effort, along with acupressure that has taken alternative medicine to new heights of acceptance, we wish to capitalize on these ideologies to present to the market, an offering that metamorphosizes writing and note making all over the world.

Pens are at the crux of everything learning. Every individual in the world has used one at least once in their lifetime. Most, have had a tryst with the device for longer than they can remember. And as suggested, nothing has been done to advance this area that is integral to everybody.

Excessive writing practices have been known to cause pains in the hand and consequently result in Writer's cramp, which may sometimes be a precursor of CTS. Writer's cramp is a specific type of focal dystonia that affects your fingers, hand, or forearm. Focal dystonia of the hands is a neurologic movement disorder. The brain sends incorrect information to the muscles, causing involuntary, excessive muscle contractions. These signals can make your hands twist into odd postures.


While this is seen to mostly be caused by overuse, poor writing posture, or holding the pen or pencil improperly. However, symptoms begin after holding the writing tool for just a few moments, not after hours.

Although stress doesn't cause hand dystonia, it can aggravate symptoms. Stressors — like test-taking — can make your writer's cramp worse. But worrying about and focusing on the cramping can also make it worse.

These postures are not facilitated by the stationery that is used. The designs of mass-produced writing instruments have developed into facilitate smooth writing and flawless ink and nib techniques, but not much has been done to relax the hand on the pen; in essence, facilitating the posture of the hand on the pen such that these consequences can be avoided.

Along these lines, ergonomics has come a long way in facilitating not just stationery but most things that help relax muscles. It is known by research that ergonomics helps decrease injuries and boosts physical efficiency (Robin Burgess-Limerick, 2018). Benefits involving ergonomics into tasks in the workspace are enumerated in the table 1.

Table 1: Benefits of Ergonomics

Benefits	Description	Picture
Comfort	Improves mental insight by inducing comfort	
Productivity	Increases productivity levels	
Pain Relief	Decreased physical pains	
Quality of Work	Increases the quality of work	
Safety and Security	Encourages safety and security	
Overall Health	Improved overall mental and physical health	

(Source: Authors Compilation)

(Image Source: Google.com)

Taking the best of both ergonomics and acupressure, we wish to imbibe the learnings into an offering - 'Acupen'. Designed with ergonomic precision to make the action of holding and moving a pen easier, comfortable and effortless, along with ideas from acupressure to help alleviate the physiological stressors that come with, the 'Acupen' is a take on writing and note making that is often seen as a mundane activity with no scope for comfort or indulgence.

With Acupen, the team proposes to capture the market population that is dissatisfied with the writing devices currently present in the market due to their lack of people friendliness and the long- term implications to the skeletal and muscular health of individuals that become apparent later on the lives. It is not just a device that facilitates writing and helps keep the population grounded to the roots of civilization and the pleasures that come with, but does so while helping people realize that comfort and health is an option they can choose while indulging in what is one of the most primal forms of human expression along with sound/speech (Uldhall H.J, 1994).

2. REVIEW OF LITERATURE

Canan Ertemoğlu Öksüz and Ahmet Kalaycıoğlu (2019) discusses the use of acupuncture as a treatment for the sequelae of Bell's Palsy. Bell's Palsy is a type of facial paralysis that can occur due to a variety of factors, including infection or inflammation. They found that acupuncture was effective in reducing facial muscle weakness and asymmetry in patients with Bell's Palsy. The authors suggested that acupuncture may work by stimulating blood flow and nerve function in the affected area. They also noted that acupuncture had a low risk of adverse effects and could be a safe and effective treatment option for patients with Bell's Palsy sequelae.

Urja Vaidya and Roshani Patel (2021) in their research paper focus on Sciatica, a type of pain treated through manual acupressure. The main aim is to find out the effectiveness of the acupressure pen to reduce Sciatica pain based the pain and distance variables. 30 participants were selected and treated with the acupressure pen for 3 alternate days for 3 weeks. Results showed that pen is effective to reduce pain and improve step length and stride length in Sciatica Patients

Patel, Jinal & Patel, Shivani. (2022) conducted a study that looked into the effectiveness of the Alexander Technique and acupressure pens in treating low back pain in bus drivers. The combination of an acupressure pen and the Alexander Technique, which involved 100 participants in the randomized controlled experiment, dramatically reduced low back pain compared to either technique used alone. According to the study, this combined therapy may be an effective treatment for low back pain in jobs that demand a lot of sitting, including bus driving.

Piyush Mehta, Vishwas Dhapte, Shivajirao Kadam, Vividha Dhapte (2017) review various types, devices and mechanisms involved in the acupressure treatment through activation of specific points on the meridians that is known to facilitate reduction of pain at the local sites. The use of complementary and alternative therapies (CAM) in healthcare has been substantial. Every culture has a well-established reputation for CAM's dependability and capacity to treat people with basic medical needs. With proper consideration of the economic elements, CAM serves as a better treatment choice for treating a variety of ailments and enhancing quality of life in humans.

Banu Atevik, Sultan Tayaca (2020), in their research found that a typical technique to lessen the severity of pain was acupressure. Their study looked at how acupressure affected individuals with upper extremity discomfort from hemodialysis in terms of pain intensity and quality of life. Five acupressure spots on the arms and shoulders were used in the trial to provide pressure during the first half of the dialysis sessions, which took place three days a week for six weeks. According to the findings of the observations, acupressure helps dialysis patients live better lives by reducing discomfort in their extremities.

Iche Nila Kusna, S. Sudirman, Ta'adi .T (2020) in this study examined, type 2 diabetes mellitus patients' fasting blood sugar levels in relation to the effects of an acupressure pen and active stretching. The pre-test and post- test control group design was used in this actual research project. 38 individuals with type 2 diabetes mellitus participated in the data collection, and they were chosen using the probability sampling with simple random sample technique. The intervention group was given an acupressure pen and active stretching therapy (Acupenas) along with two 500 mg doses of metformin. The control group, on the other hand, only got therapy, including the metformin pill 2x500 mg, but not active stretching. The bigger difference value in the tests showed that the intervention group performs better at reducing blood sugar levels than the control group. Complementary therapy is acupressure pen and active stretching was effective in reducing blood sugar levels in type 2 Diabetes Mellitus patients.

3. RESEARCH DESIGN

This is an exploratory paper and case study based drafted on the product ideation. The data has been collected from both primary and secondary, where the primary data includes various observations done on market gaps and information collected through interviews. The secondary data includes various online blogs and articles on Ergonomics and Acupressure from which we have deduced our product meeting the market expectations called Acupen.

4. DESCRIPTION OF THE PRODUCT

Taking the best of both ergonomics and acupressure, we wish to imbibe the learnings into an offering - 'Acupen'. Designed with ergonomic precision to make the action of holding and moving a pen easier, comfortable and effortless, along with ideas from acupressure to help alleviate the physiological stressors that come with, the 'Acupen' is a take on writing and note making that is often seen as a mundane activity with no scope for comfort or indulgence.

With Acupen, the team proposes to capture the market population that is dissatisfied with the writing devices currently present in the market due to their lack of people friendliness and the long- term implications to the skeletal and muscular health of individuals that become apparent later on the lives. It is not just a device that facilitates writing and helps keep the population grounded to the roots of civilization and the pleasures that come with, but does so while helping people realize that comfort and health is an option they can choose.

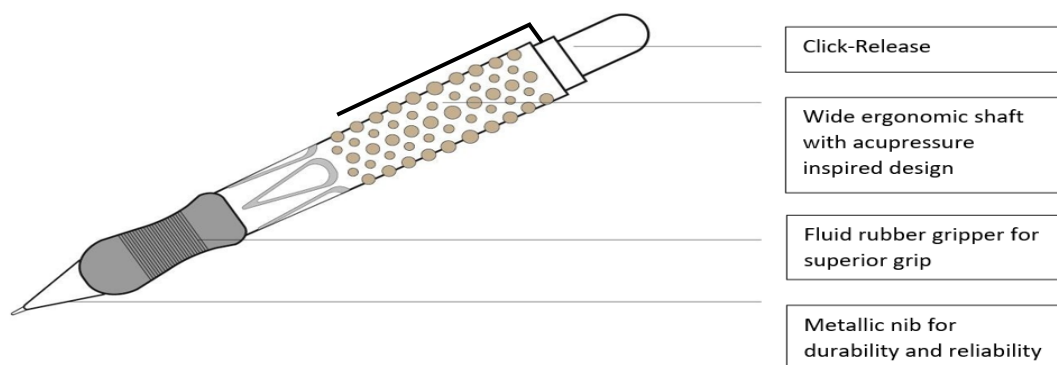



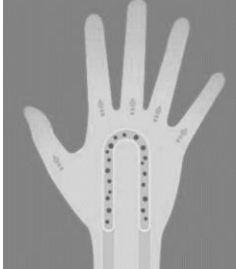
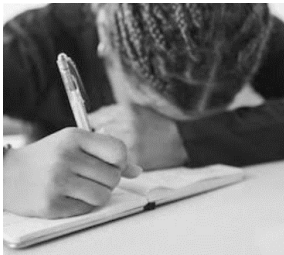


Figure 1: Design of ACUPEN

The aim of the proposed venture is to regularize comfortable writing through the design of the writing instrument – the shaft in priority, and make it available to individuals to whom writing is integral to their day. It is not just a writing device that we propose to the market, but a new perspective on what makes us social animals – communication; a proposal of healthier, comfortable and personalized written communication. The benefits of Acupen are enumerated in the table 2.

Table 2: Benefits of ACUPEN

Benefits	Description	Picture
Comfortable writing experience	Acupen is designed to be comfortable to hold and use, which can make writing a more enjoyable and less tiring experience.	<p>The picture shows an advertisement for the Accu Pen. On the left, a hand holds the pen with the text 'No Pain with Accu Pen'. On the right, a diagram of a hand and wrist shows the 'ACUPRESSURE POINTS' and 'RESISTAL MIDDLE CLASP'.</p>

Increased productivity	Acupen can help you write faster and more efficiently, which can increase your productivity and help you get more done in less time	
Better handwriting	Acupen can help improve your handwriting by providing a smooth and consistent flow of ink, which can help you write more neatly and legibly	
Reduced hand fatigue	Acupen can help reduce hand fatigue and cramping, especially during long writing sessions, by providing a comfortable grip and smooth writing experience	
Improved circulation	The stimulation from the acupressure pen can increase blood flow to the targeted areas, helping to improve circulation.	
Reduced stress and anxiety	Acupressure can help to release tension and promote relaxation, which can lead to reduced stress and anxiety	






(Source: Authors Compilation)

(Image Source: Google.com)

Market Gaps

There are various similar products that are based on the same natural healing technique i.e., through focusing on the acupressure points but after reviewing various journals and papers, we found some common gaps which have been addressed in our product Acupen. Table 3 Exhibits the Market Gaps addressed by Acupen.

Table 3: Market gaps addressed by ACUPEN



Market Gaps	Explanation	Picture
Price	Acupen we have addressed this gap by implementing various methods which were focused on reducing the overall price of the product without compromising on the quality aspect. To compete with premium pen manufacturers	
Sustainability	Acupen is made of bamboo and soft wood to manufacture the barrel of our product and we ensured the usage of plastic is at the minimum contributing our share towards sustainability.	
Comfortability to use	In Acupen fluid rubber gripper for superior grip and comfortability in writing. The fluid rubber gripper takes the shape of the fingers of writer and it adjusts according to it giving the writer comfortable, fluid and hassle-free writing	
Replaceable Nibs	Acupen once the pen is purchased the customers need not spend their money again to buy another one instead they can buy a new refill and use the same pen, where few of the products in the market lack this feature as the entire pen has to be replaced once the ink is completed.	
Untapped Indian market	There are acupressure tools existing in the market, but there is no current product we have developed that is existing in the pen industry.	



(Source: Authors Compilation)

(Image Source: Google.com)

SWOT Analysis- The Table No.04 Exhibits the SWOT Analysis of our product.

Table 4: SWOT Analysis

 <p>STRENGTHS Health Beneficial Unique Design Less pressure while writing Release stress by acting on points Durable writing Units</p>	 <p>WEAKNESSES Ideas are constrained by the capabilities of the tool - pen</p>
--	--

	
<p>OPPORTUNITIES</p> <p>Untapped India market Product Innovation and new growth platforms</p>	<p>THREATS</p> <p>Possible competitors Company Growth is dependent on its Innovation Product Acceptance</p>

(Source: Authors Compilation)

(Image Source: Google.com)

5. COMPETITOR ANALYSIS

Performing a competitor analysis for a new, innovative product that does not currently exist in the market can be challenging, as there may not be direct competitors to compare with. However, there are a few steps we have taken to gather insights and identify potential competitors.

Firstly, we identified the problem our product solves - A writing instrument that pays attention to health, helps in reducing stress and anxiety, induces less pressure in fingers and provides comfort while writing.

Next, the Target Audience was defined. They were described as 'Professionals with a moderately high/High income, belonging to Socio-economic Classification Category (SEC) A1. These individuals are residents of metropolitan cities with high urbanization and presence of expendable income.

Following the above steps, a market research was done to elucidate that there are acupressure tools existing in the market, but there is no current product existing in the pen industry that resembles our proposition.

Hence our competitors can be arrived at as major players in the Indian pen industry, including both domestic and international brands. Some of these major players in the Indian pen industry are Cello, Linc, Reynolds, Parker, Montblanc, and Waterman.

6. CONCLUSION

Entering into the stationery industry area will allow Acupen to provide the result of its research in the form of a cutting-edge writing instrument to the people who did not even know they needed it. Setting up the corporate office and manufacturing plant in the outskirts of Bengaluru, the tech-hub of the nation allows us to produce all of our products in-house and in one location, delivering them promptly and efficiently to the market in the Metropolis. We have the unique ability to change the way writing is viewed, and we wish to leverage this.

The inception of Acupen will help alleviate the lack of people-friendly writing instruments and the long-term implications to the skeletal and muscular health of individuals that become apparent later on the lives of the users, while simultaneously contributing to the generation of job opportunities in the region.

Acupen is a small step towards realizing a healthier and comfortable way of leaving behind a mark for the future, literally.

REFERENCES

- [1] Burgess-Limerick, R. (2018). Participatory ergonomics: Evidence and implementation lessons. *Applied Ergonomics*, 68, 289–293. <https://doi.org/10.1016/j.apergo.2017.12.009>
- [2] Cevik, B., & Taşci, S. (2020). The effect of acupressure on upper extremity pain and quality of life in patients hemodialysis treatment: A Randomized Controlled Trial. *Complementary Therapies in Clinical Practice*, 39, 101128. <https://doi.org/10.1016/j.ctcp.2020.101128>
- [3] Kusna, I., Sudirman, S., Widiyanto, B., Supriyana, S., & Ta'adi, T. (2020). The Effectiveness of Acupressure Pen and Active Stretching (Acupenas) on Fasting Blood Sugar Levels among Type 2 Diabetes Mellitus Patient. *International Journal of Nursing and Health Services (IJNHS)*, 3(6), 672–679. <https://doi.org/10.35654/ijnhs.v3i6.362>

- [4] Mehta, P. M., Dhapte, V., & Kadam, S. S. (2017). Contemporary acupressure therapy: Adroit cure for painless recovery of therapeutic ailments. *Journal of Traditional and Complementary Medicine*, 7(2), 251–263. <https://doi.org/10.1016/j.jtcme.2016.06.004>
- [5] Öksüz, C. E., Kalaycioglu, A., Uzun, Ö., Kalkışım, Ş. N., Zihni, N. B., Yildirim, A., & Boz, C. (2019). The Efficacy of Acupuncture in the Treatment of Bell’s Palsy Sequelae. *Journal of Acupuncture and Meridian Studies*, 12(4), 122–130. <https://doi.org/10.1016/j.jams.2019.03.001>
- [6] Patel, J., & Patel, S. A. (2022). Effectiveness of Acupressure Pen with Alexander Technique In Participants With Low Back Pain Among Bus Drivers- A Randomized Controlled Trial. *International Journal of Scientific Research*, 24–26. <https://doi.org/10.36106/ijsr/4600989>
- [7] Patel, J., & Thakrar, J. (2022). “Effectiveness Of Acupressure Pen Versus Tens In Trapezitis: A Comparative Study.” *International Journal Of Scientific Research*, 58–60. <https://doi.org/10.36106/ijsr/7904690>
- [8] Uldall, H. J. (1944). Speech and writing. *Acta Linguistica*, 4(1), 11–16. <https://doi.org/10.1080/03740463.1944.10410903>
- [9] Vaidya, U. S., & Patel, R. R. (2021). Effect of Acupressure Pen on Distance Variable in Sciatica Patients -A Randomized Control Trial. *International Journal of Scientific Research*, 28–31. <https://doi.org/10.36106/ijsr/8718134>
- [10] Writers’ cramp. (1993). PubMed. <https://pubmed.ncbi.nlm.nih.gov/8353672/>