A 100 gram bar of dark chocolate with 70-85% cocoa contains (1):

- 11 grams of fiber.
- 67% of the RDA for Iron.
- 58% of the RDA for Magnesium.
- 89% of the RDA for Copper.
- 98% of the RDA for Manganese.
- It also has plenty of potassium, phosphorus, zinc and selenium.

Figure 13. Iron and Dietary Fiber Correlation Research [11]

## 4. Results and Conclusions

This section will analyze the chocolate health index distribution and understand on how to choose better chocolate products, especially for patient with heart disease. The top four healthiest chocolates for heart disease were found in this paper. JMP software tools such as cluster analysis, correlation analysis, and distribution analysis were all applied to this project. Cocoa science, such as cocoa production, flavonoids, antioxidants, flavanol benefits, and the different types of chocolate, was learned throughout this paper. STEM approach is applied effectively to define the project scope by taking systematic scientific literature and engineering problem solving techniques. Further research may consider different health indexes for other diseases (cancer, diabetes, etc). The STEM approach could be applied more in daily life. The other opportunity is that antioxidants and flavonoid science will be further researched and proven through STEM framework.

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