Sunflower seeds have been mainly used to extract the oil which is majorly used for cooking or other culinary purpose in various parts of the world besides its use in cosmetic industries. The seeds of sunflower are well known for its physico-chemical, phytochemical potential as required by the human body like presence of Vitamin E, B complex Vitamins, essential fatty acids, poly-phenols etc. in it. However, still lacking its identity in the pharmaceutical industries. Therefore, the present study is aimed to fulfil this gap by using sunflower seeds as a pharmaceutical weapon for curing various deranged metabolic parameters including serum cholesterol levels, blood lipid levels, Fasting blood glucose levels, SGOT, SGPT levels; and its further utilization in food product development for its efficient delivery in term of health and nutraceutical foods. Moreover preventing various metabolic disorders with nutritional intervention is therapeutic strategy that is widely being adopted.