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## Optimizing Workforce: Strategic Decisionmaking at Sri Sathya Sai Sanjeevani Hospital

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## **Synopsis**

Sri Sathya Sai Sanjeevani Hospital in Naya Raipur, specializing in Child Heart Care, faces challenges in optimizing patient services with a substantial workforce offering free community services. The authority grapples with managing the increasing load of child patients with limited funding. To enhance efficiency and reduce costs, the hospital authority aims to optimize human resources by analysing workload and time scheduling structure. The case study explores decision-making scenarios in time scheduling and human resources management, providing insights into cost-effective management with optimal supporting medical and non-medical staff requirements. This study designs the time scheduling management of SSSH manpower in a linear optimization framework. Applying the Simplex Algorithm, this case study examines optimal manpower management in different critical situations with a minimum expense in human resource costs. It showcases a practical application in decision-making using Excel Solver and other advanced software applications like Lingo and MATHEMATICA.

Keywords: Scheduling Optimization, Linear programming, Simplex Algorithm, Big-M Method, Lingo, MATHEMATICA.

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1) Teaching Note: Product Number- CHIRP-45647-TN

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