Big Data Assignment – Moody Mental Health Center

Limitations of using small data solutions in Moody Mental Health Center include low quality data such as duplicates, misspellings, and overlaid records. The integrity of data is compromised. Another limitation is that Moody Mental Health is using a central repository and is not allowing extra storage for backup of data in case something such as natural disasters occur. The benefits of using big data solutions outweigh the benefits of using small data solutions by an abundant amount. Switching from a database to data warehouse allows data standardization and integration of numerous data types. Also, creating pipelines that automatically check for duplicates or inaccuracies of data can improve quality of data and thus, help save costs. For example, standardized and accurate dosages of prescribed medications can save time, costs, and even limit damages done to a patient's health. To conclude on this idea, big data has the potential to improve the quality of care delivered by using predictive analytics on treatment plans that have the highest rates of success. Predictive analytics can also determine when a population outbreak will happen and narrow down diagnoses based on treatment of past patients with similar symptoms.

```
facesheet
-
MRN PK int
patient_ID int FK >- MPI.patient_ID
DOB date
admit_date date
patient_name varchar(25)
diagnosis_code varchar(5)
address varchar(100)

history_and_physical
-
MRN int FK >- facesheet.MRN
vitals_bp int
vitals_hr int
height int
weight int
orientation varchar(50) FK >- mental_status_exam.orientation
medications varchar(100)
medical_history varchar(100)
surgical_history varchar(100)


MPI
-
patient_ID PK int
MRN int
patient_name varchar(25)
DOB date
admit_date date
discharge_date date
diagnosis_code varchar(5)
gender varchar(5)
insurance varchar(50)

clinicians
-
employee_name PK varchar(50)
job_title varchar(20)
credential varchar(20)
years_exp int

mental_status_exam
-
patient_name varchar(25)
attitude varchar(20)
behavior varchar(20)
speech varchar(20)
mood varchar(20)
thought_process varchar(20)
perception varchar(20)
orientation PK varchar(50)
clinician_name varchar(25) FK >- clinicians.employee_name
```