A Diagnostic-Prescriptive Approach
in Designing Individualized Academic Support

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Presentation Outline

• Background
• Definition: *Diagnostic-Prescriptive Approach*
• Diagnostic Assessment Instruments
• Analysis of Data
• Prescriptive Development of Individualized Intervention Strategies
• Collaboration of Support Services
• Holistic Enhancement of Academic Performance and Personal Well Being
• Questions
Background

Professional Background

Student Performance Study of 84,000 medical students (research published in *Journal of the American Medical Association* – Sept 15, 2010)

- 89% performed very well
- 11% either left medical school or graduated but had not passed one or both of the licensing exams on their 1st try, which can hinder placement into a residency program.

General Consensus (books and articles on remediation):

- To correct academic deficiencies & offer the right kind of support to at risk students:
  - an assessment of the problem is needed
  - appropriate and timely interventions need to be provided
  - there should be an evaluation of intervention outcomes

Diagnostic – Prescriptive Approach

- involves assessments
- includes comprehensive interview
- evaluates data to define problem/s
- creates support/intervention strategies to resolve problem/s
- provides holistic support
- evaluates/monitors outcomes
- adjusts interventions as needed
Diagnostic - Prescriptive Approach

**Academic Therapist Approach**

**Step 1: Collect Information and Develop a Differential Diagnosis**

**Diagnostic** = gather current and historical information to define problem/s
- Collect data (assessments, academic records, comprehensive interview)
- Review individual strengths and weaknesses
- Analyze data from a 360 view
- Identify problem/s potentially hindering progress/success
- Assess need for further evaluations

**Step 2: Develop a Plan**

**Prescriptive** = create individualized intervention strategy plan
- Develops strategies to assist learning based on evaluation of all diagnostic data collected
- Includes support services available
- Collaborates with support team
- Enlists additional professional services as needed
- Provides holistic plan to support all areas of concern
- Evaluates intervention plan effectiveness and adjusts as needed
Step 1 - Diagnostic Assessments

**RVU Assessment Instruments:**

1. *Learning Style Inventories
2. *Study Skills Survey
3. *LASSI
4. *Nelson Denny Reading Test

*(completed during Orientation; information retained by Student Affairs department)*

**Information from Assessments:**

**Learning Specialist**
- Provides baseline assessments of learning/study skills
- Identifies areas of potential academic concerns
- Highlights learning strengths/weaknesses prior to meeting with students
- Provides effective and efficient first steps in developing academic intervention strategies

**Students**
- Self identifies areas to proactively discuss with learning specialist
Diagnostic Assessment Instruments

Learning Style Inventories

- **VAK Learning Style Survey** (visual, auditory, or kinesthetic)
- **Metalearning Survey** (approach to tasks = doing or watching; emotional response = thinking or feeling > Reflecting, Analyzing, Philosophy, Organizing)

Study Skills Inventory:

- textbook reading; note taking; test prep; concentration; time management

Learning and Study Strategies Inventory

- **LASSI** - anxiety; attitude/interest; concentration/attention; information processing; motivation/self-discipline; self testing/prep for class; selecting main ideas; use of support materials; time management; test strategies/test prep (areas of strength, moderate need for improvement, areas of weakness)

Nelson Denny Reading Test:

- 45 minutes to administer (15 min = vocabulary; 20 min = reading comprehension)
- Tests vocabulary; reading rate (words per minute); reading comprehension
Step 2 - Academic Review

Review of COM related academic history to date:
- System course grades
- Rotation Shelf exam scores
- COMLEX scores (Step 1, Step 2 CE & PE)
- Any failures
- Consistency in grades (any patterns, trends, unusual or sudden changes)

Review prior academic information available:
- MCAT
- Colleges attended/degrees/dates of attendance/GPA
Step 3 - Comprehensive Interview

Standardized Template for interview questions:

- Goals for Residency
- Degrees (dates received); work experience
- Current academic concerns and support needs
- Personal information
- Medical information
- Family medical information
- Social history
- Personal perceptions
- Academic history (K>undergraduate studies)/any learning issues (dyslexia, ADD/ADHD), special services received
- Current educational skills self rating (strengths and weaknesses)
- Academic experiences at RVU to date
- Study skills and strategies currently in use
- Resources
Step 4 - Analysis of Data

• Identify Learning Styles
• Evaluate Study Skills
• Determine Reading Rate, Comprehension and Vocabulary - Grade Equivalencies & Percentiles
• Review academic record past and present
• Review personal goals, medical information, personal situation, lifestyle, current study strategies & use of support services, educational history/issues
• Assess individual strengths and weaknesses
• Determine need for further evaluation or testing
Prescriptive Process

Designing a plan based on all the diagnostic data:

• **Determine strategies** appropriate for student’s learning style
• **Determine specific strategies** from study skills and reading assessments
• Decide what additional **on campus support services** are needed (tutoring, counseling)
• **Consult and collaborate** with Student Affairs and StARC team as needed
• Evaluate need for **outside services** or further evaluation (neuropsychological testing)
• Evaluate need for **ADA accommodations**
• Determine appropriate **next steps**
• Develop **follow up** plan to monitor progress
• Adjust plan as needed depending on outcomes
Step 1 – Planning from Assessment Data

Planning Strategies appropriate for learner based on assessment data:

- **Learning Style** (VAK & Metalearning)
- **Study skills** (areas below efficacy scores)
- **LASSI** (areas below 50\textsuperscript{th} percentile = Major issues; areas from 55>70\textsuperscript{th} percentile = moderate issues)
- **Nelson Denny Reading Test** (if GE is below college level in reading rate and/or comprehension = strategies for strategic readers; vocabulary = review vocabulary before reading).

*Anyone w/ reading rate below 200 wpm is required to see learning specialist after Orientation.*

- **Academic Record** – grade consistency, sudden or unexpected changes, trends
Step 2 – Planning from Interview Data

Include in plan additional strategies/interventions based on data collected during interview session:

- **Personal goals** – are goals appropriate
- **Student concerns**/reasons for seeking assistance – these need to be addressed but should not be the only focus of support offerings
- **Medical conditions** – past and present medical conditions and/or medications can affect situation
- **Personal issues** – family and personal health/emotional problems, may need counseling support; personal strengths/weaknesses
- **Lifestyle** – home life, support systems, psychosocial issues
- **Current study strategies** – strengths/weaknesses
- **Current use of support services**
- **Disabilities**
- **ADA needs (from educational history)** – any history that supports need for accommodations or further evaluation or testing
Step 3 - Collaboration of Support Services

Comprehensive Prescriptive Plans include collaboration with appropriate support services:

- Student Affairs Department
- Student At Risk Committee (StARC)
- Phase Directors
- Tutoring
- Counseling
- Library
- Faculty
- Off site professionals
- Other students
Partnership with the Student

Prescriptive plans always include collaboration with the student:
(Students should feel a partnership with learning specialist during the entire process)

If needed, discuss with student:
• Additional support services (tutoring, counseling)
• Need for outside services or further evaluation (neurophysiological testing)
• ADA accommodations

Next Steps
• Discuss plan (strategies the student is willing to try, services they will enlist)
• Accountability (student responsibilities)
• Evaluation (evaluate effectiveness)

Follow up
• Meeting/s to assess progress and next steps
Prescriptive Plan - Follow Up

- Discuss progress markers/protocols for monitoring intervention/strategy progress with student
- Determine accountability – students responsibility
- Set a follow up date with the student to evaluate progress together
- Check on performance for improvement
- Determine if support services recommended have been utilized as planned
- Adjust as needed - interventions/strategies/support services
- Have deadline for outside evaluation or testing
- Initiate accommodations for student if need is determined – check outcomes
Holistic Strategies to Enhance Academic Performance & Personal Wellbeing

- Study strategies appropriate for the learner are developed
- Additional support services & resources are utilized to assist in the learning process (on and off campus)
- Physical and mental health issues are addressed
- Protocol with follow up to assure the best possible outcomes is provided
- Adjustments to protocol implemented based on outcomes
- Resources for personal balance of body, mind and spirit are monitored and adjusted as needed
Effective and Efficient Approach

- Collecting assessment surveys and inventories during orientation captures information on all students on the same date = individual and class baselines
- Alerts early student concerns for proactive interventions
- Information is readily available for future reference and use for assisting all students
- Assessment information provides framework for discussions during first meeting with students
- Intake session provides 360 view of the student
- Assessments + intake session = comprehensive holistic approach to developing individualized intervention strategies
- Follow up evaluates current interventions and need for any modification and/or further support services
July 2015 – February 2016
Academic Support for Class of 2019

Class of 2019 Academic Support Snapshot to Date:

• 1\textsuperscript{st} Year Class of 2019 = 162 new students
• 72 students have sought academic support during the year (July – February) = 44\% of class
• 40 = were seen within the first month for intake sessions
• Of the initial 40 = 29 were only seen 1 time
• 15 were seen one additional time after the 1\textsuperscript{st} month
• 39 students have been seen multiple times throughout the year
• 6 students are repeating the year with the Class of 2020
Diagnostic – Prescriptive Approach

- **Diagnostic** = Collects data to determine a differential diagnosis

- **Prescriptive** = Designs a plan and develops next steps based on the diagnostic data

- Involves **Collaboration** of Support Services

- Focuses on holistic student success; academically, professionally and in personal well-being
Questions???

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- Books and Articles on remediation of medical students - list available upon request
- Links for assessment instruments and ordering information (LASSI and Nelson Denny Reading Test) available upon request
- Interview template and student report summary sample available upon request