Analysis of Need Statements: Machine Learning Communications Trainer

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Executive Summary

Our analysis reveals a consistent demand for a tool that enhances medical communication by focusing on three key themes - Skill Development, Feedback & Assessment, and Practitioner Well-being - to the benefit of practitioners, trainees, and patients.

1 Analysis of Key Findings

Theme 1: Skill Development & Training

This theme centers on providing a safe and repeatable environment for professionals to practice crucial communication skills, especially for difficult conversations.

- *A coaching tool for med students to learn affective communication and empathy skills before actually having to deal with real patients.*

- *A way to practice delivering terminal diagnoses for medical residents in order to build their communication skills.*

- *A way to simulate conversations with diverse patient types for hospice nurses in order to improve their ability to adapt their communication style.*

Theme 2: Feedback & Assessment

This theme highlights a desire for objective, immediate, and data-driven feedback to measure communication performance and track skill progression over time.

- *A way for young doctors to get immediate feedback on their patient interaction in order to better their empathy skills.*

- *A way to provide objective feedback on empathetic communication in palliative care trainees in order to accelerate the development of their conversational skills.*

- *A way to measure the progression of empathetic skills over time in medical students and residents in order to provide a clear, data-supported path for professional development.*

Theme 3: Well-being & Professional Development

This theme links improved communication skills to reducing practitioner burnout, managing emotional fatigue, and supporting career-long professional growth.

- *A way to mitigate the erosion of empathy in resident physicians in order to reduce provider burnout and improve the long-term quality of care.*

- *A way to develop strategies for managing the personal emotional toll of these conversations for the entire hospice team in order to reduce burnout.*

- *A way to provide ongoing, confidential feedback on real-world patient interactions for practicing physicians in order to support career-long professional development.*

1.1   Stakeholder Analysis

The core stakeholders are **Practitioners** (Doctors, Nurses) seeking to reduce burnout and refine skills; **Trainees/Residents** requiring a safe, low-risk environment to accelerate skill development; and **Patients**, who are the ultimate beneficiaries through improved satisfaction, trust, and understanding of their care.

2   Summary Table

Theme	Core Focus	Primary Stakeholders
Skill Development & Training	Proactive and scalable practice in a safe, simulated environment.	Trainee/Resident, Practitioner
Feedback & Assessment	Objective, personalized, and data-driven performance analysis.	Trainee/Resident, Practitioner
Well-being & Professional Development	Reducing practitioner burnout and supporting career-long growth.	Practitioner, Trainee/Resident
Patient Experience (Outcome)	Improving satisfaction, trust, understanding, and emotional comfort.	Patient

Table 1: Summary of Need Statement Analysis